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COMMONWEALTH OF PENNSYLVANIA.

FIRST ANNUAL REPORT

OF THE

BUREAU OF STATISTICS

OF

LABOR AND AGRICULTURE,

FOR THE YEARS 1872-3.

HARRISBURG:

BENJAMIN SINGERLY, STATE PRINTER.

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INTRODUCTION.

IN judging of our first annual report, we desire our readers to understand that it was made up without legislative authority to enforce answers to circulars asking information, and without any appropriation to pay deputies for canvassing the counties. We had, like the Israelites of old, to make brick without straw. You, therefore, ought not to expect our statistics to be entirely from original sources. Like the busy bee, we have collected from every wayside flower; from books, reports, our own observations and voluntary contributions from others. How far our labors have been a success, each reader must judge for himself.

We regret, that in this State, our county, city, ward and township officers have not been required to make annual reports to some central office; hence, far the greater portion of the taxes collected from the people never appear in any State report. In Ohio, local taxation is reported to the State Auditor, and appears in his annual report. Why should not the tax-payers of Pennsylvania be informed annually of the amount of her local as well as State taxation?

To vary the recurrence of tabular statements, we have prepared a number of brief sketches of affairs that we supposed would interest some of our readers. The materials from which these have been drawn are not accessible to the mass of our citizens.

We have, in like manner, endeavored to give from the best sources at our command, the aggregate wealth of the State and the approximate amount of local taxation for all purposes. We are sorry that these are not official returns. If our information is approximately correct, then at least six-sevenths of all taxes assessed are for local, and not over one-seventh for State purposes.

The Labor Department is, in this State, the first effort, in an official form, to investigate the relations that exist between capital and labor. This Bureau undoubtedly owes its existence mainly to the efforts of those who thoroughly sympathised with what is popularly known as the Labor Reform Movement. No report would be complete that should seek to avoid the discussion of these vexed questions. The materials for this part of my work are almost entirely original, and have been collected, arranged and discussed under my direction, by JOHN TOMLINSON, Esq., one of my deputies. Many of the readers will cavil at some of his criticisms, but upon the whole his conclusions are in accordance with the profoundest philosophy of this age, and have my own hearty approbation.

I believe the future of this great Commonwealth is chiefly dependent upon the education, skill and intelligence of her laboring classes. To develop these in their highest degree we must recognize the paramount rights of the laboring masses. Capital and its accumulation are to be protected, but not at the expense of the higher rights of the individual citizen. To collect and present data upon which to adjust the delicate relations existing between the capitalist and his workmen, we recognize as the chief function of this Bureau. We have, during the past year, on several occasions interfered, never to excite, but always to allay the collisions that have heretofore seemed inevitable; and we believe that our interference, in this respect alone, has been worth to the State ten times all the Bureau has cost.

THOS. J. BIGHAM,

Commissioner.

PART I.



MISCELLANEOUS STATISTICS.

POPULATION OF THE WORLD.

THE GRAND TOTAL OF HUMANITY, ACCORDING TO THE LATEST ACCOUNTS.

	Area.	Population.	To sq. mile.
Europe.....	3,790,000	301,614,200	89
Asia.....	16,668,900	794,004,800	48
Africa.....	11,630,400	192,520,200	18
Oceania.....	3,424,200	4,365,300	1
America.....	15,879,400	84,640,700	6
Total.....	51,392,900	1,377,145,200	27

The details for the Continent of Europe and the islands adjacent to it, with the year in which the census was taken, are given in the following statement:—

	Census.	Area.	Population.	To sq. mile.
Germany.....	1871	208,556	41,058,139	197
Austro-Hungary.....	1869	240,276	35,904,435	149
Lichtenstein.....	1867	62	8,320	134
Switzerland.....	1870	15,987	2,669,147	147
Denmark.....	1870	14,749	1,784,741	121
Iceland and Faroe.....	1870	40,234	79,755	2
Sweden.....	1870	170,541	4,168,525	24
Norway.....	1870	122,243	1,753,000	14
Netherlands.....	1870	12,676	3,688,377	291
Luxemburg.....	1871	998	197,504	20
Belgium.....	1869	11,370	5,021,336	442
Great Britain and Ireland.....	1871	121,078	31,817,108	263
British dependencies.....	1871	145	160,369	1,037
France.....	1872	204,031	36,102,621	177
Spain.....	1867	192,908	16,377,844	85
Canary Islands.....	1867	2,807	276,036	98
Portugal.....	1868	34,491	3,995,153	116
Azores and Madeira.....	1868	1,311	365,821	279
Andorra.....	1868	149	12,000	80
Italy.....	1871	114,261	26,796,253	234
Turkey.....	1871	133,955	10,510,000	78
Roumania.....	1871	46,696	4,500,000	96
Servia.....	1871	16,812	1,319,283	78
Montenegro.....	1871	1,700	100,000	50
Russia.....	1867	1,923,820	69,364,541	36
Finland.....	1867	138,788	1,843,253	13
Greece.....	1870	19,347	1,457,894	70
Total.....		3,790,011	301,614,227	80

The British dependencies included in the above statement are those within the limits of Europe only—the Islands of Heligoland and Malta, and Gibraltar.

The following gives the areas and population of the leading Asiatic nations :—

	Census.	Area.	Population.	To sq. mile.
Russia.....	1867	5,942,806	10,537,513	2
Turkey.....	1871	672,315	16,463,000	24
Arabia.....		1,025,732	4,000,000	4
Persia.....		635,769	5,000,000	8
China.....		3,740,726	446,500,000	119
Japan.....	1870	149,354	34,785,321	233
Hindustan and British Burmah.....	1869	1,558,280	206,225,580	132
East India Islands.....		799,118	32,620,000	41

The principal islands of the Pacific Ocean are given in the following :—

	Area.	Population.	To sq. mile.
Australia.....	2,944,341	1,565,294	0.5
Tasmania.....	26,207	99,328	4.0
New Zealand.....	106,227	294,028	3.0
New Guinea.....	274,435	1,000,000	4.0
Sandwich Islands.....	7,630	62,959	8.0

There are so few well defined geographical divisions in Africa, that the following embrace all of interest; the population of Algeria being according to French census of 1872, and that of the other countries named being estimated :—

	Area.	Population.	To sq. mile.
Morocco.....	259,508	2,750,000	11
Algeria.....	258,234	2,921,146	11
Tunis.....	45,702	2,000,000	44
Tripoli, etc.....	344,312	750,000	2
Egypt.....	658,902	8,000,000	12
Cape Colony.....	220,451	682,600	3
Madagascar.....	227,685	5,000,000	22

The figures for the different divisions of North America and the neighboring islands, are as follows; the population of the United States being given according to the census of 1870, and that of Mexico according to the census of 1871 :—

	Area.	Population.	To sq. mile.
Greenland.....	759,585	10,000	.....
British America.....	3,523,092	3,888,577	1
United States.....	3,603,884	38,925,598	1
Mexico.....	761,442	9,176,032	12
Gautemala.....	40,766	1,180,000	29
San Salvador.....	7,323	600,000	82
Nicaragua.....	58,153	350,000	6
Costa Rica.....	21,488	165,000	8
Honduras.....	46,078	350,000	8
British Honduras.....	13,496	25,635	2
Carried forward.....	8,835,307	54,670,872	159

	Area.	Population.	To sq. mile.
Brought forward.....	8,835,307	54,670,872	159
Bermudas.....	24	11,796	431
St. Pierre and Miquelon.....	81	3,971	49
Hayti.....	10,202	572,000	57
San Domingo.....	17,822	136,500	8
Spanish Islands.....	49,465	2,068,870	42
British Islands.....	12,632	1,054,116	83
French Islands.....	1,016	306,244	301
Dutch Islands.....	368	35,482	96
Danish Islands.....	118	37,821	321
Swedish Islands.....	8	2,898	362
Total.....	8,927,043	58,900,570	7

The countries of South America make the following showing; the population of the Argentine Republic being given according to the census of 1869:

	Area.	Population.	To sq. mile.
Brazil.....	3,252,050	10,000,000	3
French Guiana.....	30,068	25,151	1
Dutch.....do.....	59,780	59,885	1
British.....do.....	99,897	152,932	2
Venezuela.....	368,128	1,500,000	4
Colombia.....	357,050	3,000,000	.....
Ecuador.....	221,815	1,300,000	6
Peru.....	510,292	2,500,000	5
Bolivia.....	535,708	2,000,000	4
Chili.....	132,575	2,000,000	15
Argentine Republic.....	871,588	1,877,490	2
Paraguay.....	63,770	1,000,000	16
Uruguay.....	66,700	300,000	5
Patagonia and Terra del Fuego.....	376,350	24,000	.....
Islands.....	6,525	686	.....
Total.....	6,952,356	25,740,140	4

Another statement of interest, in this connection, shows the area and population of the foreign possessions of the different European powers, which are as follows:—

	Area.	Population.		Area.	Population.
Great Britain...	7,924,148	171,610,000	Portugal.....	739,703	3,873,000
Turkey.....	1,721,232	27,213,000	Denmark.....	87,094	127,000
Holland.....	674,873	23,433,000	Sweden.....	8	2,900
Russia.....	5,942,806	10,730,000			
Spain.....	117,138	6,419,000			
France.....	457,515	6,240,000	Total.....	17,664,521	249,648,300

It is thus seen that the possessions of nine European powers outside of Europe, embrace nearly five times as large an area as the whole of Europe, while the population of this enormous territory is barely equal to five-sixths of that of Europe. The foreign dependencies of all the European States, included in the last statement, exceed the ruling power in territory, except Spain and Sweden; but Great Britain, Turkey and Holland, are the only European States whose dependencies have a greater population than themselves.

POPULATION AND ITS RATIO OF INCREASE.

TABLE showing the population of the United States by States and Territories.

STATES.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.
Alabama.....				127,901	309,527	590,756	771,623	964,201	996,992
Arkansas.....				14,255	30,888	97,574	209,897	435,450	484,471
California.....	237,946	251,002	261,942	275,148	297,675	309,978	370,792	460,147	537,454
Connecticut.....	59,096	64,273	72,674	77,749	76,748	78,085	91,532	112,216	125,015
Delaware.....					34,730	54,477	87,445	140,424	187,748
Florida.....								1,057,286	1,184,109
Georgia.....	82,548	162,686	252,433	340,985	516,823	691,392	906,185	1,711,951	2,530,891
Illinois.....			12,282	55,162	157,445	476,183	851,470	1,350,428	1,680,637
Indiana.....		5,641	24,520	147,178	343,031	685,866	988,416	1,194,020	1,580,637
Iowa.....						43,112	192,214	674,913	1,184,059
Kansas.....								107,206	364,399
Kentucky.....	73,677	220,955	406,511	564,135	687,917	779,828	982,405	1,135,684	1,321,011
Louisiana.....			76,566	152,923	215,739	352,411	517,762	708,002	726,915
Maine.....	96,540	151,719	228,705	298,269	399,455	501,793	583,169	628,279	626,915
Maryland.....	319,728	341,548	389,546	407,350	447,040	470,019	583,034	687,049	780,894
Massachusetts.....	378,787	422,845	472,040	523,139	610,408	737,699	994,514	1,231,066	1,457,351
Michigan.....			4,762	8,765	31,639	212,267	397,654	749,113	1,184,059
Minnesota.....							6,077	172,023	439,706
Mississippi.....		8,850	40,352	75,448	136,621	375,651	606,526	791,305	827,922
Missouri.....			20,845	66,557	140,455	383,702	682,044	1,182,012	1,721,295
Nebraska.....								28,841	122,933
Nevada.....								6,857	42,491
New Hampshire.....	141,885	183,858	214,460	244,022	269,328	284,574	317,976	326,073	318,300
New Jersey.....	184,189	211,149	245,562	277,426	320,823	373,306	489,555	672,035	906,096
New York.....	340,120	589,051	959,019	1,372,111	1,918,608	2,428,921	3,097,394	3,880,735	4,382,759
North Carolina.....	393,751	478,103	555,500	638,829	737,987	753,419	869,039	992,622	1,071,361
Ohio.....		45,365	230,760	581,295	937,903	1,519,467	1,980,329	2,339,511	2,665,260
Oregon.....							13,294	52,465	90,923
Pennsylvania.....	434,373	602,365	810,091	1,047,507	1,348,253	1,724,033	2,311,786	2,906,215	3,521,951
Rhode Island.....	68,825	69,122	76,931	83,015	97,199	108,830	147,545	174,620	217,353
South Carolina.....	249,073	345,591	413,115	502,741	581,185	594,398	668,507	703,708	705,606
Tennessee.....	35,691	105,602	261,727	422,771	681,904	829,210	1,002,717	1,109,801	1,258,520
Texas.....							212,592	604,215	818,579
Vermont.....	85,425	154,465	217,895	255,966	280,652	291,948	314,120	315,098	330,551
Virginia.....	747,610	880,200	974,600	1,065,116	1,211,405	1,239,797	1,421,661	1,596,318	1,925,163

[illegible]

WHICH IS TO BE THE EMPIRE STATE?

The annexed official tables show the movements of population in New York and Pennsylvania for eighty years. During the first forty years New York was constantly gaining in the race, but during the last forty years our State has, at each decennial census, been closing up the gap. The same rate of progress will, at the closing of the present century, leave them side by side. But the elements of increase are decidedly in favor of Pennsylvania. Her great gain is in her mining and manufacturing districts. New York has no elements to compete with these. Pennsylvania must, each decennial census, gain upon the ratio of the last ten years, and the close of the nineteenth century will show her not only the Keystone of the Federal arch, but also the Empire State of the Union.

New York State population from 1790 to 1870, actual rate of increase; also estimated increase from 1870 to 1900, at per cent. of increase of 1870:

CENSUS OF NEW YORK.	Population.	Increase.	Per ct. of incr.
1790	340,120	.....	.....
1800	589,051	248,931	73.
1810	959,049	369,998	38.
1820	1,372,111	413,062	43.
1830	1,918,608	546,497	39.75
1840	2,428,921	510,313	26.50
1850	3,097,394	668,473	27.50
1860	3,880,735	783,341	25.
1870	4,382,759	502,024	12.93
1880	4,949,449	566,690	12.93
1890	5,589,012	639,563	12.93
1900	6,311,671	722,659	12.93

Pennsylvania State population from 1790 to 1870, &c. :—

CENSUS OF PENNSYLVANIA.	Population.	Increase.	Per ct. of incr.
1790	434,373	.....	.....
1800	602,365	167,992	38.70
1810	810,091	207,726	34.48
1820	1,047,507	237,416	29.43
1830	1,348,233	300,726	28.70
1840	1,724,033	375,800	27.87
1850	2,311,786	587,753	34.
1860	2,906,215	594,429	25.71
1870	3,521,951	615,736	21.19
1880	4,268,252	746,301	21.19
1890	5,172,694	904,442	21.19
1900	6,268,787	1,096,093	21.19

Pennsylvania wanting only an addition of 42,884 in the year 1900. to equal the population of New York State.

BEARINGS OF INDUSTRIAL EMPLOYMENTS.

In the two following tables six of the States, of each class, have been selected to show the bearings of industrial employments. The first table shows the existence of diversified industries; and the second, where about three-fifths of all industries are engaged in agriculture. As a political economist, I believe that diversified industries, such as prevail in Pennsylvania, are much to be preferred to the engrossment of three-fifths in any one occupation. Not only in the nation should the producers and the consumers both be found, but as far as possible in each State—aye, in each neighborhood should the farmer's barn, and the mechanic's workshop stand side by side.

The true remedy for the agricultural States of the west, now agitated by a demand for cheap transportation of their heavy products to the east, would be the erection of mills to card and weave their cotton, their wools, their flax and hemp, and of manufacturing establishments to make their own domestic and agricultural implements. If one-third of the present agricultural laborers in these States would become mechanics, miners, &c., and thus consumers of their former products, the other two-thirds would find no trouble in sending their diminished surplus to the east at reasonable rates, and would retain at home the money now sent abroad to purchase manufactured articles for their own consumption.

In my judgment, this would be the sensible mode of terminating a thousand vexed questions that now agitate many sections of our common country.

Pennsylvania is peculiarly fortunate in having her busy population engaged in a thousand industrial employments, to interchange with each other. Her central position, and industrial pre-eminence, makes her truly the Keystone of all other industrial interests on this continent. The second and third columns of these tables show the professional or brain power, and trade and transportation, or commercial regulators, may safely be trusted to adjust themselves, if the general government can only properly adjust and harmonize the equilibrium between the agricultural and mining and manufacturing occupations of our common country:

STATES in which Diversified Industries prevail.

STATES.	Agriculture.	Professional.	Trade and transportation.	Manufactures and mining.
Massachusetts	72,810	131,291	83,078	292,665
Connecticut	43,653	38,704	24,720	86,344
Rhode Island	11,780	19,679	10,108	47,007
New York	374,323	405,339	234,581	476,775
Pennsylvania	260,051	283,000	121,253	356,240
California	47,863	76,112	33,165	81,508

PERCENTAGES.

Massachusetts	12.55	22.64	14.32	50.47
Connecticut	22.56	20.01	12.78	44.64
Rhode Island	13.29	22.21	11.41	53.07
New York	25.15	27.18	15.73	31.96
Pennsylvania	25.48	27.73	11.88	34.90
California	20.05	31.85	13.89	34.15

STATES in which Agriculture is the leading pursuit.

STATES.	Agriculture.	Professional.	Trade and transportation.	Manufactures and mining.
Illinois	376,441	151,931	80,422	133,227
Ohio	397,024	168,308	78,547	197,010
Iowa	210,263	58,484	28,210	47,319
Kansas	73,228	20,736	11,762	18,126
Minnesota	75,157	28,330	10,582	18,588
Wisconsin	159,687	58,070	21,534	53,517

PERCENTAGES.

Illinois	50.50	20.47	10.83	17.95
Ohio	47.21	20.01	9.34	23.42
Iowa	61.07	17.01	8.19	13.74
Kansas	59.12	16.74	9.49	14.63
Minnesota	56.65	21.35	7.97	14.01
Wisconsin	54.53	19.83	7.35	18.27

TABULAR STATEMENT,

Showing the number of persons in various pursuits and occupations, in Pennsylvania, at the census of 1870.

	PERSONS OCCUPIED—AGE AND SEX.					
	Number.	10 to 15.		15 to 60.		60 and over.
		Male.	Female.	Male.	Female.	
Population—10 years and over.....	2,597,809	249,620	246,823	946,418	959,534	98,934
All occupations.....	1,020,544	29,347	9,640	804,756	121,943	2,752
Agriculture.....	260,051	12,294	46	218,247	1,087	146
Professional and personal services.....	283,000	6,993	6,993	175,800	81,384	1,949
Trade and transportation.....	121,253	2,376	297	111,180	4,068	174
Manufactures and mining.....	356,240	8,614	2,304	299,529	35,404	483

TABULAR STATEMENT,

Showing the number of youth and adults—male and female—in all pursuits in Pennsylvania with the percentage of the several occupations, at the census of 1870.

	All occupa- tions.	Agricul- ture.	Percent- age.	Profes- sional and personal.	Percent- age.	Trade and trans- portation.	Percent- age.	Manufac- turing and mining.	Percent- age.
Persons 10 to 15 years, (male).....	29,347	12,294	42.	6,063	21.	2,376	8.	8,614	29.
Do. do. (female).....	9,640	46	.48	6,993	72.	296	3.	2,304	24.
Do. do. (male).....	804,756	218,247	27.	175,800	22.	111,180	14.	299,529	37.
Do. do. (female).....	121,943	1,087	.90	81,384	67.	4,068	3.	35,404	29.
Do. do. (male).....	52,106	28,231	54.	10,811	21.	3,158	6.	9,906	19.
Do. do. (female).....	2,752	146	5.	1,949	71.	174	6.	483	18.
Total.....	1,020,544	260,051	25.	283,000	27.	121,253	11.	356,240	35.

POPULATION OF PENNSYLVANIA BY COUNTIES—1790 TO 1870.

COUNTIES.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.
Adams.....	.....	13,172	15,152	19,370	21,379	23,044	25,981	28,006	30,315
Allegheny.....	10,309	15,087	25,317	34,921	50,552	81,235	138,290	178,831	262,204
Armstrong.....	.....	2,399	6,143	10,324	17,701	28,365	20,560	35,797	43,382
Beaver.....	.....	5,776	12,168	15,340	24,183	29,368	26,689	29,140	36,148
Bedford.....	13,124	12,039	15,746	20,248	24,502	29,335	23,052	26,736	29,635
Berks.....	30,179	32,407	43,146	46,275	53,152	64,569	77,129	93,818	106,701
Blair.....	.....	.....	.....	.....	.....	.....	21,777	27,829	38,051
Bradford.....	.....	.....	.....	11,554	19,746	32,769	42,831	48,734	53,204
Butler.....	.....	3,916	7,346	10,193	14,581	22,378	30,346	35,594	36,510
Bucks.....	25,401	27,496	32,371	37,842	45,745	48,107	56,091	63,578	64,336
Cambria.....	.....	.....	2,117	3,287	7,076	11,256	17,773	29,155	36,569
Cameron.....	.....	.....	.....	.....	.....	.....	.....	.....	4,273
Carbon.....	.....	.....	.....	.....	.....	.....	.....	.....	21,633
Centre.....	7,562	13,609	10,681	13,796	18,879	20,492	15,686	21,633	28,144
Chester.....	27,937	32,093	39,596	44,451	50,910	57,515	66,438	74,578	77,805
Clarion.....	.....	.....	.....	.....	.....	.....	23,565	24,988	26,537
Clearfield.....	.....	.....	875	2,342	4,803	7,834	12,586	18,759	25,741
Columbia.....	.....	.....	.....	.....	.....	8,323	11,207	17,723	23,211
Crawford.....	.....	2,346	.....	17,621	20,059	24,267	17,710	25,065	28,766
Cumberland.....	18,243	25,386	6,178	9,397	16,030	31,724	37,849	48,755	63,832
Dauphin.....	18,177	22,270	26,757	23,606	29,226	30,953	34,327	40,098	43,912
Delaware.....	9,483	12,809	31,883	21,653	25,243	30,118	35,754	46,756	60,740
Elk.....	.....	.....	14,734	14,810	17,323	19,791	24,679	30,597	39,403
Erie.....	.....	1,468	.....	.....	.....	.....	3,531	5,915	8,488
Fayette.....	13,325	20,159	3,758	8,541	17,041	31,344	38,742	49,432	65,973
Franklin.....	15,655	19,638	24,714	27,285	29,172	33,574	39,112	39,909	43,284
Fulton.....	.....	.....	23,083	31,892	35,037	37,793	39,904	42,126	45,365
Forest.....	.....	.....	.....	.....	.....	.....	7,567	9,131	9,360
Greene.....	.....	8,605	.....	.....	.....	.....	.....	898	4,010
Huntingdon.....	7,565	13,008	12,544	15,554	18,028	19,147	22,136	24,343	25,887
Indiana.....	.....	.....	14,778	20,139	27,145	35,484	24,786	28,100	31,251
Jefferson.....	.....	.....	6,214	8,882	14,252	20,782	27,170	33,687	36,138
Juniata.....	.....	.....	161	561	2,025	7,253	13,518	18,270	21,656
Lancaster.....	36,147	43,403	53,927	67,975	76,631	11,080	13,029	16,986	17,390
Lawrence.....	.....	.....	.....	.....	.....	84,203	98,944	116,314	121,340
Lebanon.....	20,557	21,079	22,999	27,298
.....	16,975	21,872	26,071	31,831	34,096

STATE OF PENNSYLVANIA.

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POPULATION OF PENNSYLVANIA—CONTINUED.

COUNTIES.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.
Lehigh.....				18,895	22,256	25,787	32,479	43,753	56,796
Luzerne.....	4,904	12,839	18,109	20,027	27,379	44,006	56,072	90,244	160,915
Lycoming.....		5,414	11,006	13,517	17,636	22,649	26,257	37,399	47,626
McKean.....			142	728	1,439	2,975	5,254	8,859	8,825
Mercer.....			8,277	11,681	19,729	32,873	33,172	36,856	49,977
Mifflin.....			12,132	16,618	21,690	9,879	14,980	16,340	17,508
Monroe.....						47,241	13,270	16,758	18,362
Montgomery.....	22,929	24,150	29,703	35,793	39,406		58,291	70,500	81,612
Montour.....							13,239	13,053	15,344
Northampton.....	24,250	30,082	38,145	31,765	39,482	40,996	40,235	47,904	61,432
Northumberland.....	17,161	27,797	36,327	15,424	18,133	20,027	23,272	28,922	41,444
Perry.....				11,284	14,261	17,096	20,088	22,793	25,447
Philadelphia.....	54,391	81,009	111,210	135,637	188,797	258,037	408,762	563,529	674,022
Pike.....				2,890	4,843	3,832	5,881	7,155	8,436
Potter.....			29	186	1,265	3,371	6,048	11,470	11,265
Schuylkill.....				11,311	20,744	29,053	60,713	89,510	116,428
Somerset.....		10,188	11,284	13,974	17,762	19,650	24,416	26,778	28,226
Snyder.....								13,035	15,606
Sullivan.....							3,694	5,637	6,191
Susquehanna.....				9,960	16,787	21,195	28,688	36,267	37,523
Tioga.....			1,687	4,021	8,978	15,498	23,987	31,044	35,097
Union.....				18,619	20,795	22,787	26,083	14,145	15,565
Venango.....		1,130	3,060	4,915	9,470	17,900	18,310	25,043	47,925
Warren.....		233	827	1,976	4,697	9,278	13,671	19,190	23,897
Washington.....	23,866	28,298	36,289	40,038	42,784	41,279	44,939	46,805	48,483
Wayne.....		2,562	4,125	4,127	7,663	11,818	21,890	32,239	33,188
Westmoreland.....	16,018	22,726	26,392	30,540	38,400	42,699	51,726	53,736	58,719
Wyoming.....							10,655	12,540	14,585
York.....	37,747	25,643	31,958	38,747	42,859	47,010	57,450	68,200	76,134
Totals.....	434,373	602,365	810,091	1,047,507	1,348,233	1,724,053	2,311,786	2,906,215	3,521,951

EXPLANATION OF LITHOGRAPHED CHART.

The accompanying lithographed chart exhibits, at a glance, the whole struggle of the counties of the State in nine decades, showing the rank and population of each county as it entered the race, and its rank and population in 1870.

Each county is entered in the chart at the commencement of the decade in which it commenced its existence, and its relative rank or status, with reference to population only, is shown in profile to the year 1870, the date of the last census.

ORGANIZATION OF COUNTIES.

Names and date, day, month and year, of the erection of the several counties of the Commonwealth of Pennsylvania, and the territory from which they were formed; the three first counties which were formed, to wit;—Philadelphia, Bucks and Chester, were established at the first settlement of the Province of Pennsylvania, and formed the only original counties of all that territory of which the now great State is formed, comprised of sixty-six counties, as follows, viz:

1. Adams, January 22, 1800, formed of a part of York.
2. Allegheny, September 24, 1788, formed of a part of Westmoreland and Washington.
3. Armstrong, March 12, 1800, formed of a part of Allegheny, Westmoreland and Lycoming.
4. Beaver, March 12, 1800, formed of a part of Allegheny and Washington.
5. Bedford, March 9, 1771, formed of a part of Cumberland.
6. Berks, March 11, 1752, formed of a part of Philadelphia, Chester and Lancaster.
7. Blair, February 26, 1846, formed of a part of Huntingdon and Bedford.
8. Bradford, February 21, 1810, formed of a part of Luzerne and Lycoming.*
9. Bucks, one of the original counties of the Province.†
10. Butler, March 12, 1800, formed of a part of Allegheny.

* Previous to March 24, 1812, this county was called Ontario, but its name was changed to Bradford on that day.

† Bucks county was one of the three original counties established at the first settlement of the Province of Pennsylvania; the other two being Philadelphia and Chester.—See *Votes of the Assembly*, Vol. 1.

11. Cambria, March 20, 1804, formed of a part of Huntingdon, Somerset and Bedford.
12. Cameron, March 29, 1860, formed of a part of Clinton, Elk, M'Kean and Potter.
13. Carbon, March 13, 1843, formed of a part of Northampton and Monroe.
14. Centre, February 13, 1800, formed of a part of Mifflin, Northumberland. Lycoming and Huntingdon.
15. Chester, one of the original counties established at the first settlement of the Province.
16. Clarion, March 11, 1839, formed of a part of Venango and Armstrong.
17. Clearfield, March 26, 1804, formed of a part of Lycoming and Northumberland.
18. Clinton, June 21, 1839, formed of a part of Lycoming and Centre.
19. Columbia, March 22, 1813, formed of a part of Northumberland.
20. Crawford, March 12, 1800, formed of a part of Allegheny.
21. Cumberland, January 27, 1750, formed of a part of Lancaster.
22. Dauphin, March 4, 1785, formed of a part of Lancaster.
23. Delaware, September 26, 1789, formed of a part of Chester.
24. Elk, April 18, 1843, formed of a part of Jefferson, Clearfield and M'Kean.
25. Erie, March 12, 1800, formed of a part of Allegheny.
26. Fayette, September 26, 1783, formed of a part of Westmoreland.
27. Forest, April 11, 1848, formed from a part of Jefferson and Venango.*
28. Franklin, September, 9, 1784, formed from a part of Cumberland.
29. Fulton, April 19, 1850, formed from a part of Bedford.
30. Greene, February 9, 1796, formed from a part of Washington.
31. Huntingdon, September 20, 1787, formed from a part of Bedford.
32. Indiana, March 30, 1803, formed from a part of Westmoreland and Lycoming.
33. Jefferson, March 26, 1804, formed from a part of Lycoming.
34. Juniata, March 2, 1831, formed from a part of Mifflin.
35. Lancaster, May 10, 1729, formed from a part of Chester.
36. Lawrence, March 25, 1850, formed from a part of Beaver and Mercer.
37. Lebanon, February 16, 1813, formed from a part of Dauphin and Lancaster.
38. Lehigh, March 6, 1812, formed from a part of Northampton.
39. Luzerne, September 25, 1786, formed from a part of Northumberland.
40. Lycoming, April 13, 1796, formed from a part of Northumberland.
41. M'Kean, March 20, 1804, formed from a part of Lycoming.
42. Mercer, March 12, 1800, formed from a part of Allegheny.
43. Mifflin, September 19, 1789, formed from a part of Cumberland and Northumberland.

* Part of Venango added by act approved October 31, 1866.

44. Monroe, April 1, 1836, formed from a part of Northampton and Pike.
45. Montgomery, September 10, 1784, formed from a part of Philadelphia.
46. Montour, May 3, 1850, formed from a part of Columbia.
47. Northampton, March 11, 1752, formed from a part of Bucks.
48. Northumberland, March 27, 1772, formed from parts of Lancaster, Cumberland, Berks, Bedford and Northampton.
49. Perry, March 22, 1820, formed from a part of Cumberland.
50. Philadelphia, one of the three original counties established at the first settlement of the Province.
51. Pike, March 26, 1814, formed from a part of Wayne.
52. Potter, March 26, 1804, formed from a part of Lycoming.
53. Schuylkill, March 1, 1811, formed from a part of Berks and Northampton.
54. Snyder, March 2, 1855, formed from a part of Union.
55. Somerset, April 17, 1795, formed from a part of Bedford.
56. Sullivan, March 15, 1847, formed from a part of Lycoming.
57. Susquehanna, February 21, 1810, formed from a part of Luzerne.
58. Tioga, March 26, 1804, formed from a part of Lycoming.
59. Union, March 22, 1813, formed from a part of Northumberland.
60. Venango, March 13, 1800, formed from a part of Allegheny and Lycoming.
61. Warren, March 12, 1800, formed from a part of Allegheny and Lycoming.
62. Wayne, March 21, 1798, formed from a part of Northampton.
63. Washington, March 28, 1781, formed from a part of Westmoreland.
64. Westmoreland, February 26, 1773, formed from a part of Bedford, and in 1785 part of the purchase of 1784 was added thereto.
65. Wyoming, April 4, 1842, formed from a part of Luzerne.
66. York, August 19, 1749, formed from a part of Lancaster.

STATE OF PENNSYLVANIA.

The following table shows the area in acres of the several counties of the State of Pennsylvania, together with the population of each in the years 1860 and 1870, and the increase, and percentage of the increase, according to the United States census:

COUNTIES.	Area in acres.	Population.		Increase.	Per- centage of inc.
		1860.	1870.		
Adams.....	337,920	28,006	30,315	2,309	8.25
Allegheny.....	482,560	178,831	262,204	83,373	46.62
Armstrong.....	408,960	35,797	43,382	7,585	21.19
Beaver.....	298,240	29,140	36,148	7,008	24.05
Bedford.....	636,160	26,736	29,635	2,899	10.84
Berks.....	588,800	93,818	106,701	12,883	13.73
Blair.....	380,160	27,829	38,051	10,222	36.73
Bradford.....	751,360	48,734	53,204	4,470	9.17
Bucks.....	387,200	63,578	64,336	758	1.19
Butler.....	502,400	35,594	36,510	916	2.57
Cambria.....	428,800	29,155	36,569	7,414	25.43
*Cameron.....	260,480		4,273		
Carbon.....	256,000	21,033	28,144	7,111	33.80
Centre.....	688,000	27,000	34,418	7,418	27.48
Chester.....	472,320	74,578	77,805	3,227	4.33
Clarion.....	384,000	24,988	26,537	1,549	6.20
Clearfield.....	761,600	18,759	25,741	6,982	37.22
*Clinton.....	591,360	17,723	23,211	5,488	30.97
Columbia.....	275,840	25,065	28,766	3,701	14.77
Crawford.....	629,760	48,755	63,832	15,077	30.93
Cumberland.....	348,160	40,098	43,912	3,814	9.51
Dauphin.....	337,760	46,756	60,740	13,984	29.90
Delaware.....	113,280	30,597	39,403	8,806	28.78
*Elk.....	446,720	5,915	8,488	2,573	43.50
Erie.....	480,000	49,452	65,973	6,541	33.46
Fayette.....	527,360	39,909	43,284	3,375	8.56
Forest.....	284,800	898	4,010	3,112	346.55
Franklin.....	480,000	42,126	45,365	3,239	7.68
Fulton.....	268,800	9,132	9,560	229	2.50
Greene.....	588,120	24,343	25,887	1,544	6.34
Huntingdon.....	537,600	28,100	31,251	3,151	11.21
Indiana.....	492,800	33,687	36,138	2,451	7.28
Jefferson.....	412,800	18,270	21,656	3,386	18.53
Juniata.....	224,640	16,986	17,390	404	2.37
Lancaster.....	608,000	116,314	121,340	5,026	4.32
Lawrence.....	229,120	22,999	27,298	4,299	18.66
Lebanon.....	195,840	31,831	34,096	2,265	7.11
Lehigh.....	232,960	43,753	56,796	13,043	29.81
Luzerne.....	896,000	90,244	160,755	70,511	77.13
Lycoming.....	691,200	37,399	47,626	10,227	27.35
*M'Kean.....	761,800	8,859	8,825	†34	†38
Mercer.....	416,000	36,856	49,977	13,121	35.60
Mifflin.....	236,800	16,340	17,508	1,168	7.14
Monroe.....	384,000	16,758	18,362	1,604	9.57
Montgomery.....	303,080	70,500	81,612	11,112	15.76
Montour.....	94,720	13,053	15,344	2,291	16.78
Northampton.....	240,000	47,904	61,432	13,528	28.24
Northumberland.....	292,480	28,922	41,444	12,522	43.29
Perry.....	344,960	22,793	25,447	2,654	11.20
Philadelphia.....	80,640	565,529	647,022	108,493	19.18
Pike.....	384,000	7,155	8,436	1,281	17.88
*Potter.....	685,440	11,470	11,265	†205	†1.82
Schuylkill.....	486,400	89,510	116,428	26,918	30.07
Snyder.....	187,520	15,035	15,606	571	3.73

*The county of Cameron was formed in 1860, after the census of that year, from parts of Clinton, Elk, M'Kean and Potter.

†Decrease.

STATE OF PENNSYLVANIA—*Continued.*

COUNTIES.	Area in acres.	Population.		Increase.	Per- centage of inc.
		1860.	1870.		
Somerset.....	682,240	26,778	28,226	1,448	5.40
Sullivan.....	275,200	5,637	6,191	554	9.82
Susquehanna.....	510,080	36,267	37,523	1,256	3.46
Tioga.....	714,240	31,044	35,097	4,053	13.05
Union.....	165,120	14,145	15,565	1,420	10.03
Venango.....	330,240	25,043	47,925	22,882	47.74
Warren.....	551,040	19,190	23,897	4,707	24.53
Washington.....	573,440	46,805	48,483	1,678	3.58
Wayne.....	460,800	32,239	33,188	949	2.97
Westmoreland.....	672,000	53,736	58,719	4,983	9.27
Wyoming.....	261,760	12,540	14,585	2,045	15.51
York.....	560,000	68,200	76,134	7,934	11.63
Totals.....	28,343,860	2,906,215	3,521,791	615,576	21.18

RATIO OF PROGRESS IN TWENTY-TWO COUNTIES.

The annexed tables give the official progress of population in one-third the most densely populated counties of the State up to 1870; also the probable population at the average ratio of increase up to 1900.

These, of course as to the future, are only approximate; some of them may fall below the average ratio, others will undoubtedly exceed it.

The most striking fact shown by these tables, is the rapid increase of population in the great mining centres; as, for example, in Venango, Schuylkill, Luzerne, Mercer and Allegheny. The next to these are the great manufacturing centres, as Philadelphia, Allegheny, Dauphin, &c. Although Pennsylvania has twelve or fifteen of the finest agricultural counties in the Union, none of them have kept pace in population with her mining and manufacturing districts.

Taking Pennsylvania all in all with her diversified industries—her mines, her manufactures, her agriculture and her commerce, her growth as shown in the past, her pre-eminence in the future—the citizen must be hard to please who is not satisfied with her position in the Union.

RATIO OF PROGRESS IN TWENTY-TWO COUNTIES. 17

POPULATION.

PHILADELPHIA COUNTY.

Actual ratio of increase from 1790 to 1870; also estimate at average rate of increase from 1870 to 1900.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	54,391	.....	.....
1800.....	81,009	26,618	48.93
1810.....	111,210	30,201	37.27
1820.....	135,637	24,427	21.96
1830.....	188,797	53,160	39.11
1840.....	258,037	69,240	36.66
1850.....	408,762	150,725	58.41
1860.....	565,529	156,767	38.34
1870.....	674,022	108,493	19.18
			*37.48
1880.....	926,645	252,623	37.48
1890.....	1,273,951	347,306	37.48
1900.....	1,751,427	477,476	37.48

ALLEGHENY COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	10,309	.....	.....
1800.....	15,087	4,778	50.
1810.....	25,317	10,230	70.
1820.....	34,921	9,604	40.
1830.....	50,552	15,631	42.
1840.....	81,235	30,683	60.
1850.....	138,290	57,055	70.
1860.....	178,831	40,541	30.
1870.....	262,204	83,373	46.62
			*51.
1880.....	395,928	133,924	51.
1890.....	597,851	202,729	51.
1900.....	902,755	304,904	51.

LUZERNE COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	4,904	.....	.....
1800.....	12,839	7,935	161.80
1810.....	18,109	5,270	41.04
1820.....	20,027	1,918	10.03
1830.....	27,379	7,352	36.71
1840.....	44,006	14,627	53.42
1850.....	56,072	12,066	27.41
1860.....	90,244	34,172	60.94
1870.....	160,915	70,671	78.31
			*58.70
1880.....	255,372	94,457	58.70
1890.....	405,273	149,903	58.70
1900.....	643,171	237,896	58.70

* Average ratio in 80 years.

18 RATIO OF PROGRESS IN TWENTY-TWO COUNTIES.

POPULATION—Continued.

LANCASTER COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	36,147		
1800.....	43,403	7,256	
1810.....	53,927	10,524	24.24
1820.....	67,975	14,048	26.04
1830.....	76,631	8,656	12.71
1840.....	84,203	7,572	9.88
1850.....	98,944	14,741	17.50
1860.....	116,314	17,370	17.45
1870.....	121,340	5,026	4.32
			*16.02
1880.....	140,778	19,438	16.02
1890.....	163,330	22,552	16.02
1900.....	189,495	26,165	16.02

SCHUYLKILL COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....			
1800.....			
1810.....			
1820.....	11,311		
1830.....	20,744	9,433	83.39
1840.....	29,053	8,309	40.05
1850.....	60,713	31,660	108.97
1860.....	89,510	28,797	47.43
1870.....	110,428	26,918	30.07
			†61.98
1880.....	188,590	72,162	61.98
1890.....	305,478	116,888	61.98
1900.....	494,813	189,335	61.98

BERKS COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	30,179		
1800.....	32,407	2,428	8.04
1810.....	43,146	10,739	33.13
1820.....	46,275	3,129	7.25
1830.....	53,152	6,877	14.86
1840.....	64,569	11,417	21.47
1850.....	77,129	12,560	19.45
1860.....	93,818	16,689	20.34
1870.....	106,701	12,883	13.73
			†17.28
1880.....	125,138	18,437	17.28
1890.....	146,761	21,623	17.28
1900.....	172,121	25,360	17.28

* Average ratio in 70 years. † Average ratio in 50 years. ‡ Average ratio in 80 years.

RATIO OF PROGRESS IN TWENTY-TWO COUNTIES. 19

POPULATION—Continued.

MONTGOMERY COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	22,929		
1800.....	24,150	1,221	5.32
1810.....	29,703	5,553	22.99
1820.....	35,793	6,090	20.50
1830.....	39,406	3,613	10.09
1840.....	47,241	7,835	19.88
1850.....	58,291	11,050	23.39
1860.....	70,500	12,209	20.94
1870.....	81,612	11,112	15.76
			*17.36
1880.....	95,779	14,167	17.36
1890.....	112,406	16,627	17.36
1900.....	131,919	19,513	17.36

CHESTER COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	27,937		
1800.....	32,093	4,156	14.87
1810.....	39,596	7,503	23.37
1820.....	44,451	4,855	12.26
1830.....	50,910	5,459	12.28
1840.....	57,515	6,605	12.97
1850.....	66,438	8,923	15.51
1860.....	74,578	8,140	12.25
1870.....	77,805	2,227	2.09
			*13.20
1880.....	88,075	10,270	13.20
1890.....	99,700	11,625	13.20
1900.....	112,860	13,160	13.20

YORK COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	37,747		
1800.....	25,643	†12,104	†32.06
1810.....	31,958	6,315	24.62
1820.....	38,747	6,789	21.24
1830.....	42,859	4,112	10.61
1840.....	47,010	4,151	9.68
1850.....	57,450	10,440	22.20
1860.....	68,200	10,750	18.71
1870.....	76,134	7,934	11.63
			*10.83
1880.....	84,379	8,245	10.83
1890.....	93,417	9,138	10.83
1900.....	103,534	10,117	10.83

*Average ratio in 80 years. †Decrease.

20 RATIO OF PROGRESS IN TWENTY-TWO COUNTIES.

POPULATION—*Continued.*

ERIE COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....			
1800.....	1,468		
1810.....	3,758	2,290	155.99
1820.....	8,541	4,783	127.27
1830.....	17,041	8,500	99.52
1840.....	31,344	14,303	83.93
1850.....	38,742	7,398	26.60
1860.....	49,432	10,690	27.33
1870.....	65,973	16,541	33.46
			*79.16
1880.....	118,197	52,224	79.16
1890.....	211,761	93,564	79.16
1900.....	379,392	167,631	79.16

BUCKS COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	25,401		
1800.....	27,496	2,095	8.24
1810.....	32,371	4,875	17.72
1820.....	37,842	5,471	16.90
1830.....	45,745	7,903	20.80
1840.....	48,107	2,362	5.16
1850.....	56,091	7,984	16.60
1860.....	63,578	7,487	13.34
1870.....	64,336	758	1.19
			†12.49
1880.....	72,371	8,035	12.49
1890.....	81,410	9,039	12.49
1900.....	91,578	10,168	12.49

CRAWFORD COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....			
1800.....	2,346		
1810.....	6,178	3,832	163.34
1820.....	9,397	3,219	52.10
1830.....	16,030	6,633	70.58
1840.....	31,724	15,694	97.90
1850.....	37,849	6,125	19.30
1860.....	48,755	10,906	28.02
1870.....	63,832	15,077	30.92
			*66.92
1880.....	105,973	42,141	66.02
1890.....	175,936	69,963	66.02
1900.....	292,088	116,152	66.02

*Average ratio in 70 years. †Average ratio in 80 years.

RATIO OF PROGRESS IN TWENTY-TWO COUNTIES. 21

POPULATION—Continued

NORTHAMPTON COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	24,250		
1800.....	30,062	5,812	23.96
1810.....	38,145	8,083	26.88
1820.....	31,765	*6,380	*16.72
1830.....	39,482	7,717	24.29
1840.....	40,996	1,514	3.83
1850.....	40,235	*761	*1.85
1860.....	47,904	7,709	19.16
1870.....	61,432	13,528	28.23
			†13.72
1880.....	69,860	8,428	13.72
1890.....	79,444	9,584	13.72
1900.....	80,759	10,899	13.72

DAUPHIN COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	18,177		
1800.....	22,270	4,093	22.51
1810.....	31,883	9,613	43.16
1820.....	21,653	*10,230	*32.08
1830.....	25,243	3,590	16.58
1840.....	30,118	4,875	19.31
1850.....	35,754	5,636	18.71
1860.....	46,756	11,002	30.77
1870.....	60,740	13,984	29.98
			†26.63
1880.....	76,915	16,175	
1890.....	97,397	20,482	
1900.....	123,333	25,936	

WESTMORELAND COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790.....	16,018		
1800.....	22,726	6,708	41.87
1810.....	26,392	3,666	16.13
1820.....	30,540	3,148	11.92
1830.....	38,400	7,860	25.73
1840.....	42,699	4,299	11.19
1850.....	51,726	9,027	21.14
1860.....	53,736	2,010	3.88
1870.....	58,719	4,983	9.27
			†17.64
1880.....	69,077	10,358	
1890.....	81,262	12,185	
1900.....	95,596	14,334	

†Average ratio in 80 years. *Decrease.

22 RATIO OF PROGRESS IN TWENTY-TWO COUNTIES.

POPULATION—Continued.

LEHIGH COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790			
1800			
1810			
1820	18,895		
1830	22,256	3,361	17.73
1840	25,787	3,531	11.37
1850	32,479	6,692	25.95
1860	43,753	10,274	31.63
1870	56,796	13,043	29.81
			*24.00
1880	70,427	13,631	24.00
1890	87,331	16,904	24.00
1900	108,290	20,959	24.00

BRADFORD COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790			
1800			
1810			
1820	11,554		
1830	19,746	8,192	70.90
1840	32,769	13,023	65.94
1850	42,831	10,062	30.70
1860	48,734	5,903	13.78
1870	53,204	4,470	9.17
			*38.09
1880	73,469	20,265	38.09
1890	101,453	27,984	38.09
1900	140,096	38,643	38.09

MERCER COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790			
1800	3,228		
1810	8,277	5,049	156.41
1820	11,681	3,404	41.12
1830	19,729	8,048	68.88
1840	32,873	13,144	66.62
1850	33,172	299	.90
1860	36,856	3,684	9.99
1870	49,977	13,121	35.60
			†54.21
1880	77,069	27,092	54.21
1890	118,848	41,779	54.21
1900	183,255	64,407	54.21

*Average ratio in 50 years. †Average ratio in 70 years.

RATIO OF PROGRESS IN TWENTY-TWO COUNTIES. 23

POPULATION—Continued.

WASHINGTON COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790	23,866		
1800	28,298	4,432	18.50
1810	36,289	7,991	28.23
1820	40,038	3,749	10.33
1830	42,784	2,746	6.86
1840	41,279	*1,505	*3.51
1850	44,939	3,660	8.86
1860	46,805	1,866	4.15
1870	48,483	1,678	3.58
1880	53,113	4,630	†9.55
1890	57,921	4,808	9.55
1900	63,452	5,531	9.55

VENANGO COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790			
1800	1,130		
1810	3,060	1,930	170.79
1820	4,915	1,855	60.62
1830	9,470	4,555	92.67
1840	17,900	7,430	78.45
1850	18,310	410	2.29
1860	25,043	6,733	36.77
1870	47,925	22,882	91.37
1880	84,315	36,490	†76.14
1890	148,512	64,197	76.14
1900	261,589	113,077	76.14

LYCOMING COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790			
1800	5,414		
1810	11,006	5,592	103.28
1820	13,517	2,511	22.81
1830	17,636	4,119	30.47
1840	22,649	5,013	22.11
1850	26,257	3,608	15.92
1860	37,399	11,142	42.43
1870	47,626	10,227	27.34
1880	65,609	17,983	†37.76
1890	90,382	24,773	37.76
1900	124,510	34,128	37.76

* Decrease.

† Average ratio in 80 years.

‡ Average ratio in 70 years.

POPULATION OF CITIES AND TOWNS.

POPULATION—Continued.

FRANKLIN COUNTY.

CENSUS OF	Population.	Increase.	Per cent. of increase.
1790	15,655		
1800	19,638	5,983	38.21
1810	23,083	3,445	17.54
1820	31,892	8,809	38.16
1830	35,037	3,145	9.86
1840	37,793	2,756	7.86
1850	39,904	2,111	5.58
1860	42,126	2,222	5.56
1870	45,365	3,239	7.68
			*16.30
1880	52,759	7,394	16.30
1890	61,358	8,599	16.30
1900	71,358	10,001	16.30

POPULATION of Harrisburg from 1800 to 1870 ; also estimated increase from 1870 to 1900, at ratio of increase from 1860 to 1870.

DATE.	Population.	Increase.	Ratio of increase.
1800	1,472		
1810	2,287	815	55.
1820	2,990	703	30.
1830	4,311	1,321	44.
1840	6,020	1,709	39.
1850	7,834	1,814	30.
1860	13,405	5,571	71.
1870	23,100	9,595	72.32
1880	39,805	16,705	72.32
1890	68,591	28,786	72.32
1900	118,196	49,605	72.32

ESTIMATED increase from 1870 to 1900, at average rate of increase from 1800 to 1870.

DATE.	Population.	Increase.	Rates of increase.
1870	23,100	9,595	47.71
1880	34,121	11,021	47.71
1890	50,400	16,279	47.71
1900	74,445	24,045	47.71

* Decrease.

POPULATION OF CITIES AND TOWNS.

25

POPULATION of the principal cities and towns of the State.

	1850.	1860.	1870.	Per cent. of increase, 1860 to 1870.
Philadelphia	408,762	565,529	674,022	.1919
Pittsburg	46,601	49,217	(a) 121,977	1.4783
Allegheny.....	21,262	28,702	(b) 58,596	1.0414
Scranton		9,223	35,093	2.8050
Reading	15,743	23,162	33,930	.4648
Harrisburg.....	7,834	13,405	23,104	.7235
Lancaster.....	12,369	17,603	20,233	.1494
Erie.....	5,858	9,419	19,646	1.0857
Wilkesbarre.....	2,723	4,253	(c) 17,264	3.0592
Williamsport.....	1,615	5,664	16,030	1.8301
Allentown.....	3,779	8,025	13,884	.7295
Pottsville.....	7,515	9,444	12,384	.3113
York.....	6,863	8,605	11,003	.2786
Easton.....	7,250	8,944	10,987	.2284
Norristown.....	6,024	8,848	10,753	.2152
Altoona		3,591	10,610	1.9546
Chester.....	1,667	4,631	9,485	1.0481
Titusville.....	243	438	8,639	18.7230
Danville.....	3,302	6,385	8,436	.3212
Meadville.....	2,578	3,702	7,103	.9186
Lock Haven.....	830	3,349	6,986	1.0859
Corry.....			6,809	
Pittston.....		3,682	6,760	.8359
Lebanon.....	2,184	4,449	6,727	.5122
Carlisle.....	4,581	5,664	6,650	.1740
Columbia.....	4,140	5,007	6,461	.2903
Carbondale.....	4,945	5,575	6,393	.1467
Chambersburg.....	3,335	5,255	6,308	.2003
New Castle.....	1,614	1,882	6,164	2.2752
Johnstown.....	1,269	4,185	6,028	.4403
West Chester.....	3,172	4,757	5,630	.1837
Phoenixville.....	2,670	4,886	5,292	.0830

(a) Since the census of 1870, fourteen wards have been added to Pittsburg, with a population of 35,723, without which the population would be 86,076, and percentage of increase .7489.

(b) Two wards, with a population of 5,416, added since census of 1870, population without, 53,180 and percentage of increase .8528.

(c) Wilkesbarre incorporated into a city and the township of Wilkesbarre added, with a population of 7,090 since census of 1870, without which, population would be 10,174, and percentage of increase 1.3921.

POPULATION OF PENNSYLVANIA BY COUNTIES.

POPULATION of the State of Pennsylvania, by counties, classified by place of birth, showing the number of persons born in selected States and foreign countries, at the census of 1870.

COUNTIES.	NATIVE.										FOREIGN.									
	Total	Born in the State ...	New York	New Jersey	Maryland	Ohio	Virginia and West Virginia	Total	British America	England and Wales	Ireland	Scotland	Great Britain—not stated	Germany	France	Sweden and Norway	Switzerland	Holland	Poland	Italy
Adams.....	29,622	27,559	89	10	1,716	25	115	693	4	11,772	25,508	2,824	1	561	2,034	1	9	164	88	4
Allegheny.....	186,307	170,915	2,162	853	1,481	3,927	2,877	75,897	676	11,772	1,391	116	2	39,083	2,034	72	1,588	4	6	106
Armstrong.....	38,828	38,947	291	30	78	182	81	3,554	84	1,778	1,117	163	11	1,074	101	2	18	9	1	1
Beaver.....	32,134	29,450	291	87	142	265	367	4,013	75	1,040	1,117	163	11	1,389	101	6	9	2	1	1
Bellfield.....	27,547	27,547	32	34	563	178	122	1,073	15	285	982	37	.....	3,496	113	9	9	11	4	4
Berk.....	100,484	100,484	194	131	130	42	122	5,885	36	582	1,491	37	.....	1,324	45	16	31	2	4	4
Blair.....	33,855	33,855	90	78	208	60	124	3,340	32	339	1,491	37	.....	1,254	19	1	18	20	4	3
Bradford.....	48,978	48,180	6,971	1,087	69	78	85	4,226	195	730	2,560	464	.....	1,346	37	4	35	20	1	1
Bucks.....	56,999	56,999	301	127	208	39	139	3,939	46	374	2,089	63	.....	2,087	263	4	49	4	1	1
Butler.....	32,571	31,868	101	45	48	172	74	3,939	33	1,848	2,210	67	12	2,704	113	7	20	2	2	1
Cambria.....	28,758	28,758	101	75	228	83	75	7,099	127	42	3,577	32	.....	1,651	56	6	7	4	.....	.....
Cameron.....	3,507	2,092	596	38	17	9	10	766	1	456	3,577	109	.....	1,651	56	12	10	12	3	1
Carlisle.....	21,180	20,629	172	394	21	23	8	6,964	26	361	4,497	106	2	308	26	12	6	6	7	.....
Centre.....	32,195	32,195	242	93	86	52	68	1,530	64	779	4,497	114	1	583	23	5	33	6	.....	.....
Chester.....	71,649	67,321	264	451	1,329	93	251	6,156	16	117	4,497	36	.....	852	33	2	29	1	.....	.....
Charlton.....	24,917	24,917	115	25	32	101	22	1,620	183	529	114	17	.....	459	191	.....	30	2	4	.....
Clearfield.....	22,851	22,851	282	91	74	25	30	2,314	110	237	963	44	.....	733	14	10	30	2	4	.....
Columbia.....	26,142	19,866	455	68	70	36	16	2,153	19	708	1,050	35	.....	303	3	18	189	2	8	.....
Crawford.....	26,613	26,613	88	368	131	18	119	946	15	79	1,050	35	.....	303	3	10	30	2	8	.....
Cumberland.....	42,966	40,870	88	39	678	75	819	7,185	15	619	2,325	222	7	2,047	491	213	47	118	20	.....
Dauphin.....	58,063	58,252	196	594	942	111	1,029	4,737	35	1,218	1,344	90	.....	1,006	32	9	41	1	16	.....
Delaware.....	52,373	58,199	282	594	873	53	213	7,030	26	2,148	4,360	206	.....	1,197	26	4	16	1	.....	.....
Elk.....	6,054	5,119	586	30	26	9	56	2,434	151	212	3,911	120	.....	933	47	263	16	1	.....	.....
Eric.....	52,669	36,405	11,103	223	103	424	111	13,274	1,573	1,162	3,911	244	26	5,659	258	31	179	46	18	.....
Fayette.....	41,668	38,089	77	123	722	343	1,415	1,616	51	483	586	153	.....	141	29	12	13	.....	.....	.....
Forest.....	3,560	3,003	352	20	19	53	9	450	80	27	150	29	.....	141	29	12	13	.....	.....	.....
Franklin.....	44,143	40,501	42	20	355	60	979	1,222	7	68	171	6	.....	141	29	12	13	.....	.....	.....
Fulton.....	8,115	8,087	19	11	280	13	79	245	.....	17	28	5	.....	185	1	5	1	.....	.....	.....
Greene.....	25,735	23,976	15	89	160	182	1,292	182	13	443	656	31	.....	31	20	4	8	.....	.....	.....
Huntington.....	28,658	28,998	54	54	278	47	81	1,593	13	443	656	31	.....	31	20	4	8	.....	.....	.....
Indiana.....	34,735	34,050	120	87	90	91	28	1,403	13	189	580	57	1	523	24	.....	13	2	3	.....
Jefferson.....	20,566	19,790	439	18	35	98	28	1,090	15	123	432	17	.....	427	6	.....	13	4	.....	.....
Juniata.....	17,175	17,039	14	12	38	7	16	215	4	24	75	7	.....	84	.....	.....	11	.....	.....	.....
Lancaster.....	113,796	111,513	254	1,169	125	152	152	7,544	21	425	1,204	36	.....	5,371	136	12	248	16	.....	.....
Lawrence.....	24,946	24,186	172	80	67	77	113	2,352	77	633	980	95	19	406	40	.....	11	.....	.....	.....
Lebanon.....	33,190	33,190	17	25	41	18	24	735	5	38	215	6	.....	442	7	.....	29	.....	.....	.....
Lehigh.....	50,610	49,912	185	236	59	46	24	6,183	14	1,187	2,511	94	.....	2,044	56	6	96	2	.....	.....
Luzerne.....	96,305	96,305	2,569	.....	276	239	302	54,688	512	17,910	24,010	2,040	27	8,749	133	50	343	18	66	9

POPULATION OF PENNSYLVANIA BY COUNTIES. 27

Lycoming.....	39,047	1,760	384	354	94	187	4,578	279	420	1,059	64	135	1	46	1	6	1		
M'Can.....	7,676	2,016	405	11	35	23	1,149	30	119	2,409	185	6	86	4	2	2	2		
Mercer.....	37,554	3,972	105	179	2,363	169	8,085	278	2,020	2,398	1,433	8	6	4	2	2	2		
Mifflin.....	16,930	449	86	38	38	36	578	14	136	269	21	19	3	2	2	2	1		
Monroe.....	16,379	301	38	33	20	20	1,006	14	88	441	19	19	3	2	2	2	13		
Montgomery.....	17,356	384	38	33	20	20	1,006	14	88	441	19	19	3	2	2	2	13		
Montour.....	16,379	301	38	33	20	20	1,006	14	88	441	19	19	3	2	2	2	13		
Mouton.....	20,189	244	505	377	104	202	9,290	63	1,483	5,479	177	65	12	49	3	2	2		
Northampton.....	12,461	99	104	22	22	22	9,290	6	1,102	757	44	23	14	21	1	1	1		
Northampton.....	58,115	497	66	54	59	59	2,520	28	1,374	2,080	187	11	74	3	2	2	2		
Northumberland.....	1,944	109	1,944	66	6,374	4,325	77	1,378	1,420	187	1	1,006	2	2	2	2	2		
Perry.....	121	124	32	46	46	46	421	3	519	178	3	104	1	3	2	2	2		
Philadelphia.....	18,157	8,238	1,381	4,233	183,624	1,488	22	549	50,754	2,474	278	1,791	300	146	536	536	400,308		
Pike.....	9,865	29	24	113	32	46	3	104	178	3	104	1	3	2	2	2	2		
Potter.....	9,865	29	24	113	32	46	3	104	178	3	104	1	3	2	2	2	2		
Schenck.....	9,865	29	24	113	32	46	3	104	178	3	104	1	3	2	2	2	2		
Snyder.....	10,388	3,720	96	80	96	80	30,893	103	9,383	13,465	680	291	16	84	1	44	4		
Somerset.....	13,453	12	11	21	21	21	1,799	34	71	186	7	1	9	2	2	2	2		
Sullivan.....	15,327	25,804	4	3	4	3	4,004	64	665	2,879	87	14	21	4	10	10	2		
Susquehanna.....	26,427	203	18	4	34	34	3,799	150	1,405	962	707	42	62	32	3	3	1		
Tioga.....	33,519	25,583	31	298	46	30	255	7	80	85	6	7	7	7	7	7	1		
Union.....	15,300	15,804	42	34	22	27	255	7	80	85	6	7	7	7	7	7	1		
Venango.....	42,139	31,313	02	136	161	194	3,789	187	855	2,385	58	36	32	2	33	3	4		
Warren.....	12,904	12,904	26	26	26	26	3,906	400	410	458	189	18	6	6	6	6	4		
Washington.....	19,981	4,910	01	25	26	63	2,793	41	898	1,147	281	2	365	25	2	2	2		
Wayne.....	45,690	42,585	68	312	924	1,350	6,719	51	1,153	3,060	52	77	2,139	65	2	2	2		
Westmoreland.....	26,469	21,543	18	22	16	22	3,988	20	992	1,365	338	13	4	4	2	2	2		
Wetmoreland.....	58,637	3,823	103	73	272	272	3,625	11	102	1,324	5	2	18	8	5	5	1		
Wyoming.....	12,187	996	477	3	9	6	3,540	15	358	313	32	35	2	27	7	7	1		
York.....	69,783	88	29	2,216	84	145	3,540	15	358	313	32	35	2	27	7	7	1		
Total.....	2,976,530	87,876	36,635	28,910	20,844	18,838	545,309	10,092	97,912	235,789	16,846	237	169,154	8,715	2,381	5,765	819	777	784

DISTRIBUTION OF POPULATION.

TABLE of Areas, Families and Dwellings, with the distribution of population to each, in the United States and State of Pennsylvania, at the censuses of 1870, 1860 and 1850.

	AREAS.		FAMILIES.		DWELLINGS.	
	1870.	1860.	1870.	1860.	1870.	1860.
	Square miles	Persons to a square mile	Persons to a square mile	Persons to a family ...	Persons to a dwelling.	Persons to a dwelling.
The United States	3,603,884	10.70	7,579,363	5.28	5.47	5.53
State of Pennsylvania	46,000	76.56	679,408	5.54	8.54	5.64
				Number	Number	Number
				5,210,994	7,042,833	3,362,337
				524,558	635,680	396,216
				5.69	5.56	5.53
				5.21	5.66	5.64
				7,579,363	4,696,692	3,362,337
				679,408	515,319	396,216
				5.28	5.53	5.53
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				7,579,363	7,042,833	3,362,337
				679,408	635,680	396,216
				5.28	5.56	5.53
				5.54	5.66	5.64
				5.69	5.47	5.53
				5.21	5.66	5.64
				7,579,363	4,696,692	3,362,337

DESTRUCTION OF OUR NATIVE FORESTS.

WHAT EFFECT THE DESTRUCTION OF OUR NATIVE FORESTS PRODUCES ON THE CLIMATE AND HEALTH OF THE STATE.

BUREAU OF STATISTICS,
Harrisburg, August 23, 1873. }

JOHN C. BROWN, LL. D.,

F. R. G. S., F. L. S., &c., Berwick on the Tweed.

DEAR SIR:—Governor Hartranft, of our State, has referred to my Department your letter asking for information as to the effect the destruction of our native forests has had upon the climate, health, &c., of our State.

You say that you are to prepare a report on the forest economy of Europe for the government of the Cape of Good Hope. I am glad to find in some parts of the world a disposition to check the wonton destruction of our native forests, which, I am sorry to say, has prevailed to some extent in this country, and I have no doubt elsewhere.

I regret to say our State has never had any official survey of her native forests, such as you inquire for. One of the earliest of American botanists, Barton, was a Pennsylvanian, whose work, published in Philadelphia in 1803, may give you some light on this subject. So, too, may Gray's Botany of the Northern States, published in New York in 1857. The only official survey ever made of our State, was of its Geology by Prof. Rogers. This work, in two volumes, was published in Europe, and is almost as well known there as here. It is undoubtedly the ablest contribution made to geology by an American.

I have neither the scientific ability or the leisure to answer so broad an inquiry as your letter proposes. To do that intelligently would require a volume. But as Gov. Hartranft has referred your letter to me, I shall send you a few thoughts suggested by it.

It is not strange that an educated Englishman should turn here to make inquiries in regard to our native forests. The very name of our State being derived from "Penn's Woods." This name was given to this province one hundred and ninety-two years since, by your King Charles, the Second, against the consent of William Penn, the younger, who proposed to call it New Wales. But the King, with vastly better taste, insisted that it should be named Pennsylvania, a name of which we have become very proud.

The twenty-eight millions of acres included in that patent, was then aptly described by the name of Penn's Woods; and something over one-third of that territory may still retain most of its native forests. But the other two-thirds have been sub-divided into farms and lots, the happy homes of nearly four millions of intelligent and patriotic men, women and children. Perhaps one-fourth of these latter are timber lands, reserved for the use of the adjacent farms.

If on your visit to this country you should include Pennsylvania in your tour, the Governor will be happy to proffer you the courtesies due to an eminent traveler, and I shall aid you by every means in my power.

I am sorry to say that, in the change from primeval nature to the present state of cultivation, our forests have suffered much more largely than you or I would sanction. But the hardy pioneer axeman who opened up our State had not learned to look upon trees from their picturesque aspect. We may indeed regret their want of taste, but it is no doubt better for the interests of civilization that they, not we, were the actors on the scene. Their want of taste was atoned for by untold virtues.

First.—I believe that the effect of the clearing out of our forests has been favorable to the health of the State. The melted snows and rains accumulated on the surface under the dense foliage of our native forests in some sections, generated a miasmi that brought fever and ague. The effects of opening up the surface to the direct rays of the sun, accompanied by thorough drainage, have changed all this, and now fever and ague are almost unknown in the State. Other diseases incident to pioneer life have also become extinct.

Second.—The destruction of our native forests has undoubtedly injuriously affected our rivers and water courses. Formerly, the mass of vegetable matter on the surface and the dense foliage tended to retain the rains and melted snows; and hence our streams were kept in a much more uniform stage than now. At present, our rains rush rapidly into the runs, creeks and rivers and we have high floods and long intervening periods of low water. We have scarcely now as many good weeks of water as we once had months. Our floods are higher, our seasons of drouth longer. This, however, we presume is incident to all countries and not peculiar to our State.

Third.—Timber has now become so valuable, that our citizens are more careful of it. In the early settlements there was little demand for timber cut from the forests. The hardy pioneers of civilization were mainly anxious to clear up the forest, to plant crops to sustain their families. Hence, the choicest of timber, that would now be a fortune to the owner, was looked upon as an obstacle in his way, and burned up without hesitation. Consequently former generations squandered what would have been a fortune to

the present. Pine, the staple of the great lumber interest of the State, will within twenty-five years be exhausted, and hemlock, poplar and ash will have to be substituted in its stead.

Fourth.—We have had no systematic effort, on a large scale, to re-produce timber. In the vicinity of dwellings, large quantities of trees have been planted, but this is only a drop in the bucket. There has been some care taken in the vicinity of iron works to re-produce a rapid growth of young timber. Formerly charcoal produced from timber was the fuel used in the manufacture of iron. Timber lands in the vicinity of iron furnaces, were chopped over once in about twenty-five years; but for lumbering purposes this process would require a faith in the future that Americans have not yet learned to exercise. At least two hundred years would be required to re-produce trees valuable to the lumberman.

Fifth.—In speaking of one-third of our State as being little changed from the days of William Penn, you must not understand me as asserting that we still retain the one-third of the valuable timber of former days. Large portions of this reserve is mountainous lands, whose timber is of secondary value. These remarks may serve to give you a faint idea. Penn's Woods of two hundred years since, have become the home of nearly four millions of civilized and intelligent freemen. If the value of the forests have been largely diminished, the productiveness of the soil has been increased ten thousand fold.

Accept my kind wishes for your success in all efforts to preserve our native forests from useless devastation.

With great respect,

I remain your obedient servant.

THOS. J. BIGHAM,
Commissioner.

DRAINAGE AREA OF THE SEVERAL COUNTIES OF PENNSYLVANIA.

The respective river basins, included in Pennsylvania, are of very unequal extent. Delaware, Susquehanna and Ohio include an immense proportion of the whole State, and sub-divide it naturally into the eastern, middle and western river sections.

The following tables give the respective areas of each, and also the smaller sections of the Potomac, Genesee and Erie:

Delaware river drains the counties of

	Sq. miles.	Acres.
Berks	920	588,800
Bucks	605	387,200
Carbon	400	256,000
Chester, three-fourths	550	354,240
Delaware	177	113,280
Lebanon, one-eighth	38	24,480
Lehigh	364	232,960
Luzerne, one-tenth	140	89,600
Montgomery	472	303,080
Monroe	600	384,000
Northampton	375	240,000
Philadelphia	126	80,640
Pike	600	384,000
Schuylkill, three-eighths	285	304,000
Wayne, three-fourths	719	460,800

Susquehanna drains the counties of

	6,371	4,203,080
Adams, three-fifths	316	202,752
Bedford, three-fifths	596	381,696
Blair	594	380,160
Bradford	1,174	751,360
Cambria, two-fifths	268	171,520
Cameron	407	260,480
Centre	1,075	688,000
Chester, one-fourth	184	118,080
Clearfield, nine-tenths	1,070	685,440
Clinton	924	591,360
Columbia	431	275,840
Cumberland	544	348,160
Dauphin	559	357,760
Elk, one-fourth	174	111,680
Franklin, one-third	229	160,000
Fulton, one-fourth	105	67,200
Huntingdon	840	537,600
Indiana, one-tenth	77	49,280
Juniata	351	224,640
Lancaster	950	608,000
Lebanon, seven-eighths	266	171,360
Luzerne, nine-tenths	1,260	806,400
Lycoming	1,080	691,200
M'Kean, one-fourth	280	179,200
Mifflin	870	560,800
Montour	148	94,720
Northumberland	457	292,480
Perry	539	344,960
Potter, five-eighths	665	428,400
Schuylkill, three-eighths	475	304,000
Snyder	298	187,520
Susquehanna	797	510,080
Sullivan	483	308,160

DRAINAGE OF PENNSYLVANIA.

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SUSQUEHANNA—*Continued.*

	Sq. miles.	Acres.
Tioga.....	1, 116	714, 240
Union.....	258	165, 120
Wyoming.....	409	261, 760
York.....	900	576, 000
<i>Genesee drains</i>	20, 604	13, 088, 848
Potter, one-eighth.....	138	85, 680
<i>Potomac drains</i>		
Adams, two-fifths.....	220	135, 168
Bedford, two-fifths.....	398	254, 464
Franklin, two-thirds.....	525	319, 000
Fulton, three-fourths.....	315	201, 600
Somerset, one-sixth.....	180	115, 200
<i>Lake Erie drains</i>	495	1, 025, 432
Erie, one-half.....	375	240, 000
<i>Ohio river drains</i>		
Allegheny.....	754	482, 560
Armstrong.....	639	408, 960
Beaver.....	466	298, 240
Butler.....	785	502, 400
Cambria, three-fifths.....	402	257, 280
Clearfield, one-tenth.....	120	76, 160
Clarion.....	600	384, 000
Crawford.....	984	629, 760
Elk, three-fourths.....	524	335, 040
Erie, one-half.....	375	240, 000
Fayette.....	824	527, 360
Forest.....	445	284, 800
Greene.....	608	389, 120
Indiana, nine-tenths.....	69	443, 520
Jefferson.....	645	412, 800
Lawrence.....	358	229, 120
M'Kean, three-fourths.....	840	537, 600
Mercer.....	650	416, 000
Potter, one-fourth.....	168	171, 360
Somerset, five-sixths.....	888	567, 040
Venango.....	516	330, 240
Warren.....	861	551, 040
Washington.....	896	573, 440
Westmoreland.....	1, 050	672, 000
SUMMARY.	4, 479	9, 719, 840
Delaware drains.....	6, 371	4, 203, 080
Susquehanna drains.....	20, 604	13, 088, 848
Genesee drains.....	138	85, 680
Potomac drains.....	1, 638	1, 025, 432
Lake Erie drains.....	375	240, 000
Ohio drains.....	15, 191	9, 719, 840
Total	44, 317	28, 862, 880

NUMBER AND SIZE OF FARMS.

NUMBER AND SIZE OF FARMS IN PENNSYLVANIA.

	Of all sizes.....	Under 3 acres.....	3 and under 10....	10 and under 20...	20 and under 50...	50 and under 100..	100 and under 500..	500 and under 1,000,	1,000 and over.....
Adams.....	3,070	6	297	392	617	785	972	1	.....
Allegheny.....	4,881	6	451	518	1,339	1,643	923	1	.....
Armstrong.....	3,353	4	106	213	1,830	1,428	772	.....	2
Beaver.....	2,305	1	94	125	536	927	618	2	.....
Bedford.....	2,372	2	15	85	383	1,019	867	1	.....
Berks.....	6,525	15	777	929	1,760	1,658	1,385	.....	1
Blair.....	1,053	.....	7	34	136	372	502	2	.....
Bradford.....	6,184	.....	282	510	2,165	2,204	1,021	.....	2
Bucks.....	6,234	9	625	947	1,784	2,191	675	3	.....
Butler.....	4,362	3	90	232	1,414	1,870	752	1	.....
Cambria.....	1,975	1	144	217	757	663	192	1	.....
Cameron.....	171	5	15	31	75	33	12	.....	.....
Carbon.....	420	.....	9	23	112	210	66	.....	.....
Centre.....	1,790	2	92	111	298	579	707	1	.....
Chester.....	4,831	1	377	525	1,102	1,610	1,215	1	.....
Clarion.....	2,418	3	97	144	614	1,036	522	2	.....
Clearfield.....	2,076	2	57	177	790	761	289	.....	.....
Clinton.....	798	.....	11	46	248	310	181	2	.....
Columbia.....	2,109	9	87	158	508	905	442	.....	.....
Crawford.....	6,537	6	273	656	2,064	2,230	708	.....	.....
Cumberland.....	2,753	2	271	219	440	865	955	.....	1
Dauphin.....	2,235	3	159	224	497	723	628	.....	1
Delaware.....	1,471	4	116	186	416	473	272	3	1
Elk.....	4,454	.....	13	89	255	76	21	.....	.....
Erie.....	4,683	5	154	335	1,705	1,748	735	1	.....
Fayette.....	2,394	2	45	96	1,425	856	959	4	7
Forest.....	262	1	20	44	114	65	18	.....	.....
Franklin.....	1,242	.....	54	40	124	283	734	6	1
Fulton.....	1,163	38	78	247	440	360
Greene.....	2,310	1	24	95	399	817	931	12	1

NUMBER AND SIZE OF FARMS.

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	2,156	4	73	82	340	813	842	2	
Huntingdon	2,156	4	73	82	340	813	842	2	
Indiana	3,621	8	107	175	839	1,601	891		
Jefferson	1,997	9	107	178	702	759	232		
Juniata	1,378	1	29	130	347	493	378		
Lancaster	7,477	9	927	949	1,423	2,465	1,702	2	
Lawrence	2,188		52	144	634		450		2
Lebanon	2,075		157	274	428	637	577	1	1
Lehigh	3,045	2	341	457	823	893	528	1	
Luzerne	3,693	56	216	334	1,327	1,360	394	5	1
Lycoming	2,640		145	251	767	976	500		1
M'Kean	2,693		23	109	356	150	55		
Mercer	4,436	14	182	328	1,491	1,744	677		
Mifflin	1,078	3	69	53	149	318	485		1
Monroe	1,348		19	100	413	546	270		
Montgomery	5,396	3	496	845	1,846	1,716	489		1
Montour	7,737		37	58	147	292	203		
Northampton	2,972		273	398	774	975	552		
Northumberland	2,087	1	80	140	456	856	554		
Perry	1,918	4	67	126	480	711	526	3	1
Philadelphia	1,898	14	84	176	291	269	63		1
Pike	638	2	76	99	243	157	61		
Potter	1,183	2	24	115	565	359	118		
Schuylkill	1,855		130	162	500	772	291		
Snyder	1,188		22	65	239	516	346		
Somerset	2,549	6	46	121	309	709	1,259		
Sullivan	883	3	76	123	387	232	62		
Susquehanna	4,191		61	176	1,276	1,801	877		
Tioga	3,211	2	65	257	1,251	1,162	468	4	2
Union	887		8	43	154	391	291		
Venango	2,141	3	47	91	775	942	283		
Warren	2,011	4	126	254	888	542	143	8	46
Washington	4,104	2	240	168	453	1,345	1,892	4	
Wayne	2,638	4	120	311	1,285	757	161		
Westmoreland	4,191	1	124	181	1,700	1,718	1,464	1	2
Wyoming	1,545	8	51	116	531	601	238		
York	6,581	6	528	837	1,718	2,004	1,487	1	
Total	174,041	264	10,028	15,905	48,151	61,268	38,273	76	76

PRODUCTIONS OF AGRICULTURE.

PRODUCTIONS OF Agriculture, constituting 25.48 per cent. of the industries of the State, from censuses of 1870.

COUNTIES.	ACRES OF LAND.			Present cash value of farms.	Orchard products.	Produce of market gardens.	Forest products.	Value of home manufactures.	Value of animals slaughtered or sold for slaughter.
	Improved.	Woodland unimproved.	Other unimproved.						
Adams.....	214,546	56,133	2,376	\$14,611,060	\$93,580	\$1,850	\$56,420	\$2,920	\$498,545
Allegheny.....	292,089	89,050	4,520	56,448,818	170,557	263,554	6,141	69,875	472,794
Armstrong.....	230,915	121,756	4,399	13,681,426	85,642	6,272	2,079	9,632	394,227
Beaver.....	176,861	71,849	125	14,198,713	52,852	11,308	510	2,487	348,199
Bedford.....	197,250	199,569	11,958	9,495,119	65,095	36,260	9,582	12,667	236,393
Berks.....	374,560	70,932	26,516	43,638,465	171,215	36,224	7,925	10,195	1,263,649
Blair.....	98,285	41,607	10,893	8,098,146	40,863	3,859	15,144	357	187,971
Bradford.....	366,851	204,992	21,472	25,158,245	110,154	2,985	48,012	20,245	752,712
Bucks.....	315,833	39,814	8,972	40,289,213	184,196	104,813	15,178	19,997	1,151,645
Butler.....	273,128	157,247	636	18,230,848	98,341	1,749	8,066	14,723	518,968
Cambria.....	193,438	133,979	2,480	4,834,076	34,286	4,854	13,066	16,155	178,344
Cameron.....	6,485	61,216	1,561	1,332,188	10,510	.....	92,795	200	12,520
Carbon.....	25,782	25,499	8,121	1,484,210	1,613	2,980	3,700	50	42,390
Centre.....	152,338	89,129	1,233	13,565,198	47,422	775	40,683	1,550	354,207
Chester.....	374,759	62,161	5,993	46,737,688	232,279	35,163	65,505	80,075	2,181,799
Clarion.....	162,742	95,394	15,923	7,784,127	53,556	160	4,833	6,932	311,902
Clearfield.....	116,218	129,536	27,419	5,931,360	57,398	506	282,983	7,272	248,426
CClinton.....	54,852	40,994	31,525	4,797,040	23,115	15,209	6,700	1,957	126,217
Columbia.....	136,710	66,245	2,200	9,015,460	26,437	4,859	940	4,730	282,616
Crawford.....	328,555	184,436	13,249	21,905,661	89,661	8,625	123,690	123,690	765,210
Cumberland.....	239,784	33,909	15,849	22,474,577	54,649	8,341	11,467	5,902	555,707
Dauphin.....	172,586	57,788	3,461	19,053,433	58,021	40,695	11,225	14,997	475,479
Delaware.....	89,438	10,105	1,211	19,288,727	60,339	59,232	24,732	38,566	406,920
Elk.....	16,124	28,606	133	1,019,820	8,274	3,356	1,975	48	34,856
Erie.....	279,868	126,427	8,462	23,991,607	131,481	37,423	212,915	14,093	656,260
Fayette.....	235,006	136,027	9,639	18,250,958	122,089	11,216	9,880	14,507	605,767
Forest.....	10,890	29,039	8,217	619,398	4,535	1,389	5,004	1,466	23,566
Franklin.....	265,517	75,448	17,255	23,775,174	96,008	5,193	58,269	24,876	579,709
Fulton.....	86,955	87,564	30,338	2,565,042	16,956	.....	18,325	3,518	100,966
Greene.....	230,594	106,720	1,028	13,554,374	93,406	300	18,452	21,586	398,572
Huntingdon.....	186,818	179,107	6,969	9,445,678	49,870	1,980	86,439	32,836	242,013
Indiana.....	256,023	159,181	12,983	12,945,069	78,110	653	86,285	17,879	455,914
Jefferson.....	104,220	107,425	28,297	5,362,623	40,296	20	211,967	6,750	191,075

PRODUCTIONS OF AGRICULTURE.

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Juniata.....	97, 569	65, 929	6, 351, 175	31, 349	87, 399	8, 128	2, 375	159, 332
Lancaster.....	462, 833	65, 413	70, 724, 908	218, 566	12, 712	31, 624	89, 708	2, 371, 860
Lawrence.....	148, 509	49, 500	11, 614, 044	44, 693	2, 471	7, 708	1, 172	299, 796
Lebanon.....	139, 481	38, 981	19, 016, 808	57, 462	11, 462	21, 027	4, 804	477, 381
Lehigh.....	181, 697	32, 367	23, 555, 476	50, 426	11, 462	27, 827	19, 528	457, 683
Luzerne.....	194, 115	127, 610	21, 565, 724	78, 762	68, 851	77, 316	18, 585	410, 612
Lycoming.....	163, 892	110, 689	11, 212, 366	34, 131	21, 958	9, 863	416, 625	135, 940
M'Kean.....	28, 164	48, 177	1, 566, 250	16, 685	95	35, 017	5, 222	84, 579
Merer.....	260, 109	105, 289	22, 048, 299	75, 086	11, 060	64, 424	21, 273	710, 626
Mifflin.....	97, 687	54, 959	9, 133, 277	34, 959	1, 467	19, 357	1, 089	187, 526
Monroe.....	85, 663	65, 470	4, 459, 114	8, 724	3, 010	2, 290	12, 063	149, 804
Montgomery.....	256, 909	22, 310	40, 902, 950	74, 348	80, 505	11, 535	1, 894	1, 298, 321
Montour.....	53, 182	16, 019	4, 615, 655	10, 466	10, 294	20, 929	2, 446	116, 453
Northampton.....	170, 062	14, 955	20, 991, 169	17, 141	22, 849	1, 721	1, 271	435, 294
Northumberland.....	147, 129	46, 089	12, 430, 987	43, 161	10, 022	27, 889	1, 787	300, 667
Perry.....	136, 809	108, 240	8, 750, 895	35, 811	4, 653	35, 390	10, 843	260, 014
Philadelphia.....	37, 518	2, 117	18, 945, 000	23, 997	645, 502	50	5, 075	63, 967
Pike.....	27, 303	88, 005	2, 213, 325	6, 794	70, 544	29, 298	581	50, 346
Potter.....	56, 307	87, 329	2, 942, 348	16, 934	70, 544	145	10, 239	95, 064
Schuylkill.....	109, 135	60, 876	8, 643, 655	41, 860	70, 544	79, 564	182, 789	259, 295
Snyder.....	92, 580	44, 070	5, 769, 403	14, 143	37, 037	37, 742	3, 007	170, 035
Somerset.....	249, 615	237, 229	12, 043, 715	8, 943	529	575	36, 933	262, 306
Sullivan.....	36, 689	57, 059	1, 658, 109	70, 433	1, 217	107, 410	6, 758	80, 501
Susquehanna.....	290, 997	148, 780	16, 707, 011	93, 814	1, 541	29, 600	18, 244	572, 688
Tioga.....	187, 305	148, 153	10, 923, 925	23, 710	11, 114	10, 373	13, 813	323, 737
Union.....	70, 752	18, 324	7, 891, 977	34, 507	3, 668	22, 089	13, 915	230, 239
Venango.....	122, 874	96, 167	7, 211, 006	42, 813	8, 606	100, 195	4, 768	217, 484
Warren.....	83, 762	131, 214	6, 976, 674	130, 612	8, 804	20, 740	4, 432	185, 901
Washington.....	409, 863	113, 404	39, 015, 006	71, 152	1, 396	46, 480	3, 255	870, 401
Wayne.....	110, 718	138, 892	8, 816, 220	114, 840	3, 408	39, 342	10, 292	272, 558
Westmoreland.....	342, 083	139, 816	28, 210, 826	25, 780	4, 462	48, 111	12, 103	675, 021
Wyoming.....	87, 953	57, 840	6, 638, 160	156, 149	23, 805	66, 582	14, 072	174, 000
York.....	411, 341	110, 139	36, 358, 484					982, 874

PRODUCTIONS OF AGRICULTURE.

PRODUCTIONS OF Agriculture, (Live Stock,)—Continued.

COUNTIES.	Value of all live stock.	Horses.	Mules and asses.	Milch cows.	Working oxen.	Other cattle.	Sheep.	Swine.
Adams.....	\$1,722,610	8,148	468	11,068	3	8,512	6,097	18,875
Allegheny.....	3,015,224	12,157	174	17,316	74	9,394	77,320	22,223
Armstrong.....	1,915,150	10,313	320	11,683	85	10,796	40,308	20,188
Beaver.....	1,576,277	5,882	89	7,901	130	6,573	98,300	12,092
Bedford.....	1,298,205	8,249	70	8,079	89	10,100	21,746	15,302
Berks.....	4,544,490	16,783	1,333	32,112	37	19,178	5,610	37,553
Blair.....	798,164	4,322	41	4,242	4	6,002	8,372	6,781
Bradford.....	4,262,095	12,131	402	35,243	2,223	25,052	36,257	12,000
Bucks.....	4,357,108	14,679	1,643	28,572	58	8,562	7,404	25,159
Butler.....	2,467,001	11,521	1,123	16,078	262	14,388	67,831	23,775
Cambria.....	833,361	3,519	51	6,537	255	5,787	16,389	7,486
Cameron.....	73,220	254	6	394	82	325	1,042	3,359
Carbon.....	202,974	885	89	1,316	33	1,088	515	1,943
Centre.....	1,332,555	6,588	69	6,484	190	9,299	18,017	15,573
Chester.....	5,192,517	14,086	708	32,670	3,371	18,545	13,069	28,165
Clarion.....	1,317,708	6,718	182	7,877	650	10,208	29,844	12,908
Clearfield.....	931,661	4,497	65	5,677	327	6,127	18,408	8,626
Clinton.....	530,152	2,512	35	2,784	93	3,857	6,045	6,983
Columbia.....	1,064,968	4,718	258	5,615	164	4,554	6,823	11,911
Crawford.....	3,702,266	13,911	123	24,247	1,919	23,721	59,954	14,685
Cumberland.....	1,909,461	10,178	348	11,423	7	11,111	7,861	23,680
Dauphin.....	1,660,572	7,002	578	10,298	5	10,366	4,462	19,239
Delaware.....	1,605,657	4,219	85	12,766	454	3,138	2,142	7,759
Elk.....	206,706	689	41	1,277	203	1,383	3,031	9,979
Erie.....	2,930,156	11,117	149	20,140	1,483	15,598	40,746	11,368
Fayette.....	2,095,444	8,318	109	8,404	433	15,366	65,261	15,852
Forest.....	127,114	444	9	633	163	789	2,087	7,709
Franklin.....	2,270,161	11,278	201	10,503	6	13,698	9,031	28,577
Fulton.....	474,654	2,945	53	3,200	217	4,283	6,879	6,906
Greene.....	1,875,272	7,278	91	7,369	1,363	14,017	121,135	19,580
Huntingdon.....	1,434,648	7,098	158	7,120	54	11,235	17,780	12,909
Indiana.....	2,174,542	11,586	209	12,061	241	13,603	44,054	17,412
Jefferson.....	941,012	4,855	196	5,391	348	5,681	20,029	8,889
Juniata.....	635,850	4,215	167	4,204	18	4,928	6,315	7,164
Lancaster.....	6,044,215	21,409	2,504	31,368	1,142	32,249	11,821	50,070

Lawrence	\$1,373,251	6,245	116	7,650	166	7,128	61,373	9,380
Lebanon	1,620,335	6,895	338	9,131	14	11,749	2,687	13,953
Lehigh	1,949,157	7,816	103	11,591	4	6,843	3,123	17,505
Luzerne	2,056,063	7,431	264	12,306	1,014	8,196	12,051	10,430
Lycoming	1,244,900	5,591	47	7,597	584	7,188	10,462	12,172
M'Kean	372,162	1,178	24	2,199	504	2,734	7,288	962
Mercer	2,784,612	11,390	143	15,507	458	18,031	68,038	15,414
Mifflin	808,039	4,373	105	3,908	20	4,924	7,552	8,449
Monroe	677,047	2,870	93	4,260	246	3,407	3,974	5,441
Montgomery	3,835,237	13,281	391	31,179	72	6,615	3,623	18,931
Montour	419,606	1,682	30	2,340	4	1,732	2,809	5,697
Northampton	1,900,042	7,999	100	10,841	13	4,047	5,562	17,073
Northumberland	1,113,983	5,406	140	6,117	4	4,892	5,602	12,495
Perry	948,988	4,885	275	5,501	147	6,854	7,119	10,906
Philadelphia	659,635	2,605	130	4,159	14	590	3,428	3,428
Pike	309,090	832	127	2,142	371	1,695	1,237	1,560
Potter	672,291	1,819	39	4,350	904	3,730	12,539	1,338
Schuylkill	951,979	3,712	730	5,883	35	5,220	3,100	10,831
Snyder	651,113	3,964	93	3,900	8	4,481	3,367	9,050
Somerset	1,666,233	8,273	13	13,811	104	15,053	32,343	10,748
Sullivan	351,901	1,074	33	2,705	604	3,386	6,976	1,982
Susquehanna	3,277,763	8,282	187	24,533	1,871	18,152	35,700	8,806
Tioga	2,074,117	6,148	153	16,017	1,716	13,433	32,729	8,331
Union	658,911	3,271	26	3,565	.....	3,305	2,639	6,128
Venango	1,150,153	5,113	53	6,963	350	7,062	32,764	10,379
Warren	1,063,503	3,599	43	7,422	726	5,626	15,337	3,387
Washington	3,938,335	12,421	146	12,280	517	16,087	426,621	26,274
Wayne	1,731,055	3,832	58	11,096	2,707	10,239	16,468	4,965
Westmoreland	3,028,081	15,144	110	16,349	48	21,822	47,938	24,372
Wyoming	822,811	2,987	60	5,814	540	4,368	6,857	3,398
York	4,013,432	14,767	2,642	23,269	297	19,904	14,068	40,083

Lancaster.....	50	2, 077, 303	88, 245	2, 820, 825	1, 943, 577	15, 529	3, 146	2, 692, 584	20, 092
Lawrence	597	234, 810	21, 493	349, 353	547, 783	18, 604	30, 852	190	268, 127
Lebanon		538, 308	70, 188	627, 881	678, 614	194	70	131	5, 206
Lehigh	264	360, 945	162, 147	549, 480	530, 632	2, 538	10, 596	500	8, 769
Luzerne.....	2, 892	101, 405	115, 339	308, 537	475, 988	625	197, 160		38, 555
Lycoming.....		271, 361	39, 820	535, 158	470, 619	2, 105	66, 780	2, 200	25, 804
M'Kean	4, 407	4, 637	1, 978	22, 620	97, 984	79	3, 190		28, 016
Mercer	2, 498	339, 424	24, 850	639, 743	883, 965	1, 040	68, 625		246, 639
Mifflin.....		322, 835	10, 851	365, 806	322, 487	833	3, 991	370	20, 457
Monroe.....		37, 062	72, 424	175, 040	113, 470	95	79, 165		12, 039
Montgomery	38	340, 873	150, 158	1, 026, 865	791, 272	1, 638	681	50	5, 609
Montour.....		111, 384	7, 330	176, 941	179, 518		8, 849		6, 756
Northampton.....		473, 295	123, 584	707, 494	539, 057	4, 123	23, 858	50	14, 271
Northumberland	99	335, 165	37, 523	510, 418	463, 634	171	25, 139	3, 700	15, 759
Perry.....		286, 725	29, 508	417, 235	435, 885	40	9, 305	250	20, 449
Philadelphia	570	53, 405	19, 886	189, 325	63, 884	8	1, 668		300
Pike.....	214	5, 850	22, 339	56, 815	28, 654		29, 522		3, 217
Potter.....	14, 770	7, 354	3, 383	32, 098	243, 763	232	30, 701	279	52, 460
Schuylkill	200	115, 631	86, 410	267, 560	288, 356	279	18, 776		6, 685
Snyder.....		247, 381	12, 752	253, 831	283, 841		6, 203		9, 366
Somerset.....		133, 788	142, 515	92, 277	559, 616	4, 506	49, 779	995	80, 177
Sullivan.....	843	10, 976	5, 678	42, 942	76, 141		34, 453		21, 219
Susquehanna.....	5, 384	18, 653	31, 117	311, 218	628, 061	734	177, 864		108, 584
Tioga.....	31, 869	91, 368	8, 874	236, 313	564, 684	17, 117	116, 263		89, 788
Union.....	72, 351	262, 639	6, 217	297, 513	318, 154	20	2, 728		8, 538
Venango	4, 328	67, 830	28, 610	216, 753	535, 899	1, 112	63, 267	100	92, 566
Warren.....	11, 000	15, 159	13, 749	98, 850	253, 380	2, 660	25, 763		50, 806
Washington.....	6, 669	445, 159	27, 243	1, 467, 904	1, 062, 408	128, 397	765	75	1, 862, 752
Wayne	1, 044	688	15, 075	95, 433	215, 459		92, 364	100	49, 526
Westmoreland	929	675, 770	43, 866	1, 168, 498	1, 358, 208	5, 605	15, 739	445	178, 650
Wyoming.....	5, 042	66, 849	38, 834	187, 213	250, 048	62	124, 983		18, 615
York.....	250	1, 129, 500	121, 035	1, 531, 541	1, 444, 763	2, 354	44, 092	527, 808	39, 095

PRODUCTIONS OF AGRICULTURE.

PRODUCTIONS OF AGRICULTURE—CONTINUED.

COUNTIES.	Peas and beans.	POTATOES.		Wine.	Butter.	DAIRY PRODUCTS.		Hay.
		Irish.	Sweet.			Cheese.	Milk sold.	
	Bushels.	Bushels.	Bushels.	Gallons.	Pounds.	Pounds.	Gallons.	Tons.
Adams	637	1,005,303	15,998	1,124	957,020	760	15,715	57,835
Allegheny	4,986	739,144	890	18,402	1,223,744	2,256	1,031,225	64,730
Armstrong	167	100,761	54	279	964,020	1,672	26,227	33,192
Beaver	416	193,425	433	6,067	936,107	5,430	66,855	30,224
Bedford	190	104,657	385	354	457,241	268	.....	28,623
Berks	340	400,846	1,675	5,768	2,658,031	3,045	191,461	114,651
Blair	72	85,955	20	1,583	294,879	100	44,634	20,677
Bradford	1,041	541,198	32	3,704	3,704,709	40,258	55,870	129,956
Bucks	573	372,979	1,116	4,488	2,861,557	125,479	1,031,730	118,014
Butler	891	187,984	85	248	1,447,093	2,695	5,345	52,507
Cambria	397	89,368	.....	272	428,273	1,238	35,155	25,801
Cameron	32	20,555	.....	.....	46,210	100	50	2,153
Carbon	118	47,496	10	.....	81,976	.....	12,590	6,909
Centre	.....	117,403	.....	125	521,090	.....	10,700	27,725
Chester	1,412	404,303	7,076	1,598	2,848,243	8,526	1,597,892	114,898
Clarion	123	57,678	15	309	565,070	1,315	170	28,104
Clearfield	157	62,059	45	71	451,942	1,337	1,664	19,928
Clinton	57	55,203	2	650	218,250	.....	17,370	11,442
Columbia	19	182,124	29	409	468,398	.....	9,436	22,132
Crawford	352	293,750	882	863	2,046,252	196,039	1,176,731	102,181
Cumberland	385	160,688	7,034	2,423	858,471	2,712	47,171	57,761
Dauphin	342	210,659	9,389	3,707	766,126	1,680	167,233	45,672
Delaware	66	197,295	87	93	1,143,051	4,400	1,637,465	32,140
Elk	198	35,694	.....	.....	108,730	.....	850	6,182
Erie	2,152	415,989	194	1,080	1,896,701	165,739	407,440	90,551
Fayette	831	79,665	1,923	1,784	691,623	3,259	6,385	35,725
Forest	84	15,290	.....	82	72,948	500	24	2,665
Franklin	10	146,753	4,566	1,045	900,710	336	12,034	55,439
Fulton	.....	40,081	115	.....	171,741	1,005	.....	9,184
Greene	219	53,712	1,178	1,776	759,135	3,569	.....	23,206
Huntingdon	265	148,679	1,330	735	465,027	690	.....	27,815
Indiana	165	77,367	51	561	1,100,925	7,874	7,635	38,749
Jefferson	89	54,596	.....	.....	497,951	246	8,951	18,914

Junata.....	61	69,520	605	166	299,575	.....	3,305	19,869
Lancaster.....	1,217	49,755	33,821	7,722	2,462,376	82,614	142,600	124,185
Lawrence.....	84	119,777	51	276	716,229	9,310	16,450	27,965
Lebanon.....	66	95,835	4,276	3,083	569,199	1,870	36,972	41,894
Lehigh.....	156	279,718	172	7,208	915,818	150	192,048	38,726
Luzerne.....	528	573,322	12	324	1,068,565	40,306	136,981	58,145
Lycoming.....	173	193,425	30	492	429,500	.....	87,634	28,738
M'Kean.....	419	54,983	.....	.....	197,200	1,810	49,396	15,243
Mercer.....	437	149,124	113	1,515	1,516,067	101,530	199,776	58,422
Mifflin.....	89	73,211	293	200	415,115	15,500	2,829	15,005
Monroe.....	168	103,816	.....	63	298,168	.....	2,425	17,973
Montgomery.....	413	456,345	477	3,100	3,104,748	195,057	3,508,322	112,287
Montour.....	4	54,241	16	7	192,048	.....	12,648	10,142
Northampton.....	218	232,088	103	3,134	843,541	.....	199,052	36,240
Northumberland.....	114	227,658	779	343	486,128	.....	34,670	25,831
Perry.....	85	115,264	2,933	151	336,221	291	4,195	25,263
Philadelphia.....	3,692	350,139	75	370	132,566	550	1,011,504	16,568
Pike.....	224	71,910	.....	11	101,179	75	4,440	8,974
Potter.....	3,946	97,621	.....	15	475,600	14,109	79,046	27,130
Schuylkill.....	2,076	233,636	738	3,364	383,435	943	80	33,154
Snyder.....	6	73,178	711	367	241,246	.....	22	51,327
Somerset.....	308	84,445	31	97	1,344,522	30	46	13,446
Sullivan.....	105	52,507	.....	.....	229,972	165	100,179	98,459
Susquehanna.....	349	341,717	.....	.....	2,580,649	8,890	353,331	82,572
Tioga.....	6,139	282,618	110	322	1,574,825	65,889	12,998	19,542
Union.....	9	75,374	592	1,078	262,936	.....	198,330	27,879
Venango.....	102	75,355	.....	57	536,405	5,026	13,188	39,583
Warren.....	221	128,078	.....	178	759,853	11,042	25,870	67,595
Washington.....	395	187,516	573	2,280	1,178,306	1,562	51,365	59,756
Wayne.....	15	255,355	.....	31	1,055,076	3,014	70,340	61,495
Westmoreland.....	64	148,248	594	386	1,206,845	270	10,718	17,258
Wyoming.....	270	236,525	.....	413	449,532	2,043	229,961	92,929
York.....	685	248,461	29,905	3,897	1,734,895	615	.....	.....

PRODUCTIONS OF AGRICULTURE.

PRODUCTIONS OF AGRICULTURE—CONTINUED.

COUNTIES.	PRODUCTIONS OF AGRICULTURE.												
	Clover seed	Grass seed	Hops	Hemp.....	Flax.....	Flaxseed	Silk cocoons	SUGAR.		MOLASSES.		BEES.	
	Bushels.	Bushels.	Pounds.	Tons.	Pounds.	Bushels.	Lbs.	Sorghum..	Maple.....	Gallons.	Gallons.	Wax.....	Honey
Adams	10,360	1,864	63	123	3,093	192	1			2,060	7	168	4,055
Allegheny.....	151	240	11							450	80	94	8,788
Armstrong.....	3,040	973	60	40	3,558	388				3,566	72	447	15,515
Beaver.....	371	634	57			3				4,392	83	314	8,149
Bedford.....	7,657	287	41	50	5,666	304				127	906	548	9,937
Berks.....	6,365	2,249	107		1,715	285				409		361	3,666
Blair.....	6,033	94	14		180	9				20	30	78	1,275
Bradford.....	332	428	11,740		8,652	390					113	3,300	139,215
Bucks.....	4,355	1,935	229		33,654	2,797				1,173		170	1,216
Butler.....	1,937	664	1,044	3	2,908	291				264	265	467	39,168
Cambria.....	490	157	180		2,416	30					1,636	376	4,070
Cameron.....													5,200
Carbon.....	580	5										40	885
Centre.....	9,849	268	16		573	32						30	400
Chester.....	4,832	5,523	497	3		4						295	4,835
Clarion.....	3,747	389	746		1,030	107				12,741	95	612	9,428
Clearfield.....	1,324	149	116		150	6					6	374	10,915
Clinton.....	1,974	19				17						46	2,261
Columbia.....	2,406	317	139	30	2,538	224						317	13,506
Crawford.....	78	122	30,480		2,422	444				45	2,831	513	14,130
Cumberland.....	11,147	766	54	2	503	19				191		384	1,752
Dauphin.....	4,892	2,710	46		1,368	62				375		188	2,735
Delaware.....	179	246	70										165
Elk.....	3											5	1,275
Erie.....	2,027	1,686	11,465		2,442	26						661	10,054
Fayette.....	662	2,329	116		2,062	53					2,030	242	25,444
Forest.....	10	4	161		40	6					160	46	3,351
Franklin.....	20,566	679								2,095		11	2,395
Fulton.....	2,117	234	15		268	23				160		30	4,285
Greene.....	6	1,995	12		2,345	234				53,845	2,421	687	27,177

PRODUCTIONS OF AGRICULTURE.

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Huntingdon.....	7,714	205	35	2,920	287	2,900	\$2	334	372	7,666
Indiana.....	2,989	1,155	187	19,884	563	1,615	268	821	203	18,376
Jefferson.....	1,487	171	32	267	59	3,760		520	68	14,990
Juniata.....	6,295	489	153	1,690	305	3,623		193	463	3,535
Lancaster.....	6,122	3,597	55	1,164	152	1,814			130	4,369
Lebanon.....	871	157	230	63,944	856	4,127		2,496	187	13,455
Lawrence.....	2,643	1,652	2	419	77		12		140	1,023
Lehigh.....	3,260	564	33	1,248	324				290	2,767
Luzerne.....	612	394	2,204	400	8	6,288	122	784	1,445	30,030
Lycoming.....	2,030	173	4	15	1	9,040	50	416	222	8,128
M'Kean.....		41				38,978			80	1,960
Mercer.....	1,655	111	213	618,422	4,657	33,505		4,970	730	34,093
Mifflin.....	6,089	245	10	70		150		3	105	3,636
Monroe.....	1,901	51		60	23	70	4		579	10,424
Montgomery.....	562	1,169	72	1,985	172		359		200	2,274
Montour.....	912	461			2				33	1,305
Northampton.....	4,262	110		322	80		373		32	1,603
Northumberland.....	4,331	496	10	587	55				75	5,765
Perry.....	7,225	564	105	63	4	240	788		624	3,695
Philadelphia.....	19		25						5	535
Pike.....	119	66	20	20		570	15		373	4,308
Potter.....		63				78,395		930	505	7,798
Schuylkill.....	3,262	588	551	556	82				299	3,781
Snyder.....	4,762	447		435	73	750	42	51	56	107
Somerset.....	1,008	704	108	11,005	967	674,326	19	5,898	573	7,189
Sullivan.....	131	145	79	40		20,700		408	627	10,316
Susquehanna.....	313	500	10,761	340	38	44,602		284	2,249	35,560
Toga.....	302	598	14,780	149	7	145,209		979	1,486	44,372
Union.....	3,293	343		188	12	630			15	622
Venango.....	646	65	92	6,605	35	2,206		123	257	16,131
Warren.....	17	161	50			44,355		487	445	7,309
Washington.....	84	2,980	1,122	40	2	8,962	32,770	1,869	780	39,950
Wayne.....		24	2,202	200		10,876		141	885	15,834
Westmoreland.....	5,202	2,151	181	1,637	225	15,514	18,371	1,507	227	15,671
Wyoming.....	133	147	63	10		2,430		53	1,143	32,018
York.....	13,013	2,915	60	7,387	576		19,240		316	10,997
Total.....	200,679	50,642	90,688	815,906	15,624	1,545,917	213,373	39,385	27,033	796,989

T A B L E

SHOWING *the relative rank of nine leading wheat growing States of the Union, from census of 1870.*

	<i>Bushels.</i>
1. Illinois	30,128,405
2. Iowa	29,435,692
3. Ohio	27,882,159
4. Indiana	27,747,222
5. Wisconsin	25,606,334
6. Pennsylvania	19,672,967
7. Minnesota	18,866,073
8. Michigan	16,265,773
9. New York	<u>12,178,462</u>

It will be observed, by the above table, that, notwithstanding the high rank of Pennsylvania as a manufacturing and mining State, she, nevertheless, ranks sixth in the list of great grain-growing States; Illinois standing first, and New York the ninth or last.

STATE OF PENNSYLVANIA—BY COUNTIES.
The productions constituting 34.90 per cent. of the industries of the State—Census of 1870.

COUNTIES.	STEAM ENGINES.		WATER-WHEELS.		HANDS EMPLOYED.				CAPITAL.	WAGES.	MATERIALS.	PRODUCTS.
	Horse-power....	Number	Horse-power....	Number	Total	Males above 16..	Females above 15.	Youth	Dollars.....	Dollars.....	Dollars.....	Dollars.....
Adams.....	149	14	2,008	169	1,214	1,172	23	19	683,928	123,891	863,892	1,415,126
Allegheny.....	40,720	595	15,384	15	34,228	29,139	1,723	3,396	54,303,474	18,493,124	52,165,557	88,789,414
Armstrong.....	2,608	65	1,650	59	1,806	1,654	61	91	3,265,233	732,544	2,901,551	4,337,357
Beaver.....	1,917	64	1,767	51	2,412	1,984	172	236	2,502,430	771,697	2,049,913	4,024,963
Bedford.....	361	14	1,575	131	943	915	22	6	1,372,515	182,020	1,113,990	1,587,924
Berks.....	10,310	319	3,192	205	8,991	7,671	70	619	11,192,603	2,711,231	10,646,049	16,243,453
Blair.....	1,782	49	1,924	79	3,624	3,453	70	101	4,145,430	1,485,591	3,704,301	6,428,366
Bradford.....	2,017	69	4,415	262	1,531	1,497	18	16	1,636,705	350,162	1,645,099	2,738,395
Bucks.....	1,559	41	3,632	183	3,425	2,770	577	78	2,808,908	817,292	3,909,773	4,732,118
Butler.....	1,062	59	1,224	65	808	767	34	7	671,189	97,474	885,836	1,330,032
Cambridge.....	3,917	158	2,310	164	3,464	3,438	8	18	2,377,072	1,501,208	6,201,631	8,641,813
Cameron.....	819	20	310	10	325	317	3	5	420,045	127,090	541,951	896,810
Carbon.....	1,340	16	1,676	64	1,612	1,515	55	42	2,460,259	758,397	1,846,802	2,955,783
Centre.....	825	32	2,662	122	1,451	1,375	26	50	1,830,346	462,485	1,876,951	3,047,674
Chester.....	4,119	54	6,844	354	6,548	5,995	292	261	5,277,561	1,997,615	7,650,940	11,494,543
Clarion.....	1,302	47	2,090	107	974	945	22	7	755,776	194,910	793,134	1,553,503
Clearfield.....	854	33	1,656	98	726	721	1	4	1,298,857	182,405	609,792	1,109,405
Columbia.....	2,439	63	1,558	85	1,532	1,482	40	10	978,005	628,744	2,153,087	3,646,526
Crawford.....	647	26	2,007	143	901	839	17	45	1,200,735	312,474	2,021,374	2,706,290
Cumberland.....	3,476	160	2,931	163	3,646	3,491	107	48	4,091,166	1,995,603	5,887,388	10,157,009
Dauphin.....	688	30	2,117	103	1,669	1,434	201	34	2,144,945	398,150	2,020,789	3,249,032
Delaware.....	6,830	107	1,400	102	4,865	4,451	234	180	6,527,520	1,998,486	9,248,585	13,514,156
Elk.....	4,021	70	2,227	79	6,448	3,811	1,503	1,134	5,927,187	2,155,554	6,845,504	11,041,654
Erie.....	1,080	26	2,982	47	661	657	1	3	1,070,000	217,388	921,679	1,524,392
	3,873	173	2,646	161	4,664	4,164	253	247	5,717,993	1,927,184	5,646,425	9,697,987

STATE OF PENNSYLVANIA—BY COUNTIES.—CONTINUED.

The productions constituting 34.90 per cent. of the industries of the State—Census of 1870.

COUNTIES.	STEAM ENGINES.		WATER WHEELS.		HANDS EMPLOYED.			CAPITAL.	WAGES.		MATERIALS.	PRODUCTS.
	No. of establishments...	Horse power....	Number	Horse power....	Total.....	Males above 16..	Females above 16.	Youth	Dollars.....	Dollars.....	Dollars.....	Dollars.....
Payette.....	402	2,160	104	1,659	2,003	1,841	66	56	2,500,875	700,692	1,929,278	3,527,404
Forest.....	37	229	25	643	256	243	.....	13	506,640	92,192	171,392	303,191
Franklin.....	529	727	170	2,795	2,106	1,971	81	54	2,438,271	459,138	2,258,782	3,621,349
Fulton.....	65	125	34	857	166	165	.....	1	387,810	36,075	337,418	512,433
Greene.....	162	669	74	345	421	402	10	9	454,908	81,970	323,565	573,650
Huntingdon.....	324	516	21	1,908	1,339	1,249	9	101	2,087,052	353,507	1,520,503	2,319,152
Indiana.....	473	1,323	66	2,161	1,086	1,044	14	28	918,220	199,321	822,498	1,393,408
Jefferson.....	232	1,087	112	1,973	700	695	3	2	743,160	153,148	637,782	1,238,613
Juniata.....	204	89	80	936	395	380	13	2	374,550	38,569	437,798	678,345
Lawrence.....	1,616	4,417	122	6,372	8,166	6,479	1,089	598	9,504,162	2,037,841	9,100,637	14,034,189
Lebanon.....	181	2,293	44	1,283	1,432	1,335	56	41	1,579,135	616,411	2,382,635	3,439,701
Lehigh.....	481	2,296	52	1,331	2,269	2,099	75	55	2,876,725	627,358	2,646,049	4,160,084
Luzerne.....	694	14,982	107	7,717	5,345	4,857	296	192	10,276,247	2,361,338	10,226,652	13,480,848
Lycoming.....	886	6,488	171	7,413	8,232	7,702	190	340	10,380,272	3,912,481	9,518,728	17,493,463
McKean.....	608	5,159	131	4,967	4,106	4,025	36	45	7,875,938	1,408,321	5,329,236	9,081,406
Mercer.....	36	584	19	802	227	227	.....	.....	288,100	80,850	195,366	358,984
Mifflin.....	458	3,527	164	1,361	2,435	2,301	65	69	3,023,677	1,079,278	4,347,936	6,544,277
Monroe.....	194	766	27	1,156	693	668	8	17	1,038,054	220,859	1,057,371	1,616,985
Montgomery.....	254	436	14	2,596	100	783	16	16	1,325,275	251,004	1,477,036	2,232,539
Montour.....	1,089	6,238	170	3,853	8,475	6,114	1,020	741	9,030,983	2,904,448	10,674,495	16,933,703
Northampton.....	138	3,107	54	157	2,290	2,191	30	69	2,745,216	1,011,858	3,181,116	4,857,602
Northumberland.....	655	4,375	81	2,863	5,765	5,253	329	183	7,099,285	2,493,226	8,166,049	12,530,834
Perry.....	424	1,779	55	909	1,941	1,812	69	60	2,348,186	731,792	2,744,803	4,207,855
Philadelphia.....	282	994	39	2,376	1,037	951	18	68	1,438,174	299,300	1,743,601	2,412,626
.....	8,181	40,328	1,611	27,696	137,496	94,421	32,687	9,388	174,016,674	58,780,130	180,325,713	322,004,517

Pike	67	10	1	1,060	49	259	255	.....	4	552,900	88,992	470,271	692,313
Potter	41	319	13	1,322	16	163	159	.....	4	195,550	39,630	120,490	249,724
Schuykill	844	3,100	88	1,465	80	5,042	4,606	303	133	4,420,081	1,699,984	5,534,578	9,586,114
Snyder	496	294	9	539	47	307	293	7	7	417,638	52,672	434,818	591,449
Somerset	496	313	15	2,522	160	1,128	1,100	12	16	731,309	133,966	735,375	1,240,671
Sullivan	83	156	8	1,572	61	247	247	.....	.....	367,555	69,743	209,740	390,877
Susquehanna	376	971	40	3,159	155	1,636	1,612	19	5	6,501,315	643,955	1,865,795	3,225,054
Thoga	282	1,610	48	2,165	94	1,123	1,099	22	2	1,025,203	326,501	1,186,270	2,190,852
Union	106	419	12	619	41	664	637	17	10	754,463	203,007	673,171	1,288,692
Venango	278	723	65	896	43	1,064	1,018	32	14	1,122,640	551,847	3,804,681	4,516,566
Warren	450	2,449	100	2,504	212	1,773	1,729	44	.....	2,549,510	491,805	1,532,438	3,224,768
Washington	402	2,679	108	1,034	55	1,230	1,119	56	55	1,048,054	309,661	1,152,623	2,037,441
Wayne	291	745	24	4,976	176	1,488	1,460	8	20	2,485,775	493,466	2,317,793	3,714,075
Westmoreland	390	2,662	108	1,065	56	1,201	1,146	18	37	1,614,225	275,085	1,649,660	2,592,487
Wyoming	194	300	14	1,903	104	491	491	.....	.....	505,005	120,515	672,633	1,013,831
York	1,111	1,377	63	5,865	350	4,027	3,667	226	134	3,351,400	934,938	4,629,981	7,028,934
Total	37,200	221,936	6,230	141,982	7,603	319,487	256,543	47,712	19,232	406,821,845	127,976,594	421,197,673	711,894,234

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Capital.....	Wages.....	Materials	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
ADAMS.						
Agricultural implements	8	29	13,250	5,266	7,039	15,880
Brick	11	65	6,050	4,520	3,687	15,682
Carriages and wagons	32	80	27,400	7,395	14,368	47,888
Clothing, men's.....	9	16	3,750	900	8,184	13,215
Fertilizers	3	14	10,000	1,350	9,475	19,250
Flouring-mill products	18	37	100,000	4,015	119,463	137,620
Iron, pigs	1	9	3,000	3,900	14,190	44,226
Leather, tanned.....	16	40	91,910	3,557	111,843	147,282
carried	9	13	25,450	1,194	61,877	72,440
Lime.....	20	92	47,870	19,845	41,781	88,804
Lumber, sawed.....	4	17	10,500	3,775	5,600	22,740
Marble and stone work, (n. s.)....	6	16	4,400	2,540	2,835	10,390
tombstones.....	3	9	4,500	390	6,588	10,060
Printing, newspaper	3	14	11,900	3,250	3,330	17,130
Saddlery and harness	16	33	7,585	1,885	9,350	18,788
Tin, copper and sheet-iron ware ..	10	19	8,250	2,742	6,374	19,023
Tobacco, cigars.....	6	20	8,000	5,160	3,985	20,655
Woolen goods.....	3	16	18,500	2,100	9,899	13,060
ALLEGHENY.						
Agricultural implements	12	245	641,200	136,790	163,387	487,770
Bellows.....	1	7	20,000	3,400	8,930	15,000
Belting and hose, (leather)	1	11	50,000	5,250	41,656	49,800
Bleaching and dyeing.....	2	35	301,500	20,656	74,915	161,036
Book-binding	6	63	41,100	18,895	23,947	49,790
Boots and shoes.....	29	294	231,900	129,262	179,472	412,115
Boxes, paper.....	2	43	13,500	8,561	20,000	34,500
wooden.....	4	42	65,200	21,533	123,380	241,000
Brass founding and finishing	9	231	1,260,500	128,367	603,650	849,991
Bread and other bakery products,	57	228	263,100	81,215	311,704	503,025
Brick	41	591	594,050	251,748	148,869	646,687
Bridge-building.....	2	374	262,500	215,500	558,448	835,628
Brushes.....	5	49	67,700	16,925	48,155	73,648
Carpets, rags.....	9	14	8,450	2,250	9,528	24,145
Carriages and wagons	63	359	405,165	157,615	146,665	478,948
Cars, freight and passenger	2	32	45,000	16,000	48,500	98,360
Cromos and lithographs.....	1	16	12,000	10,152	6,000	26,000
Clothing, men's.....	100	1,044	613,750	298,456	641,639	1,191,213
women s.....	11	51	9,700	7,100	23,755	41,830
Coal-oil, rectified.....	20	330	1,951,533	198,082	5,543,471	6,950,645
Coffee and spices, ground	1	18	44,000	4,500	190,960	204,000
Coffins	3	155	226,300	90,150	92,640	282,400
Coke.....	6	103	516,500	62,205	106,790	243,690
Confectionery	6	31	62,700	11,400	22,675	51,900
Cooperage.....	36	434	184,525	224,064	462,755	783,706
Copper, rolled.....	1	30	250,000	25,000	211,280	276,000
Cork-cutting	1	100	60,000	18,000	75,300	125,000
Cotton goods.....	4	840	1,050,000	188,900	827,400	1,205,360
Crucibles	1	9	60,000	8,900	72,760	145,000
Curled hair	1	3	5,000	2,000	20,900	23,500
Drain-pipe	1	7	5,000	3,000	4,000	15,000

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
<i>ALLEGHENY—Continued.</i>						
Drugs and chemicals.....	4	508	1,611,500	168,699	475,580	1,322,200
Edge tools and axes.....	3	179	351,000	157,000	178,360	384,900
Fertilizers.....	1	2	5,000	500	9,045	10,500
Files.....	2	24	4,700	6,700	1,845	11,390
Fire arms, small arms.....	1	32	30,000	20,800	12,717	45,200
Flouring mill products.....	26	94	328,500	31,458	746,866	913,723
Frames, mirror and picture.....	2	22	29,000	13,780	29,400	52,500
Furniture, (not specified).....	33	438	387,350	228,039	318,700	743,401
iron bedsteads.....	1	13	15,000	8,500	10,716	26,570
Gas.....	3	195	1,010,000	129,867	114,598	410,872
Glassware.....	32	4,259	4,660,800	2,568,487	1,527,983	5,832,492
Glue.....	2	19	14,500	8,500	31,424	56,040
Gold leaf and foil.....	1	3	6,000	1,000	13,928	18,198
Grease and tallow.....	1	4	8,000	2,100	10,000	15,000
Hardware, (not specified).....	9	295	296,900	107,130	258,431	538,001
saddlery.....	3	111	96,520	47,720	45,690	120,560
Iron, blooms.....	7	714	1,125,000	430,570	2,356,190	2,923,460
forged and rolled.....	33	7,076	12,755,847	4,502,463	13,190,125	20,101,664
bolts, nuts, washers, &c.....	5	704	557,500	357,450	821,566	1,463,795
nails and spikes, cut, &c.....	10	1,132	1,668,500	577,980	2,417,054	3,229,131
pipe, wrought.....	3	177	335,000	96,000	469,800	617,000
pigs.....	4	464	1,250,000	286,000	1,494,590	2,324,000
castings.....	37	1,726	2,556,000	921,465	2,316,907	3,802,911
stoves, heaters, &c.....	9	351	580,000	178,108	329,362	717,670
Kaolin and ground earths.....	1	5	10,000	2,350	11,750	16,500
Leather, tanned.....	18	197	659,300	102,880	1,020,153	1,276,305
curried.....	15	76	263,700	34,126	699,092	785,298
dressed skins.....	5	18	15,000	6,330	28,493	40,225
Lime.....	3	18	26,000	9,000	21,660	59,478
Liquors, distilled.....	3	36	290,000	20,900	287,744	702,000
malt.....	40	273	1,235,386	142,685	584,779	1,317,978
Lumber, planed.....	14	109	259,300	58,625	294,530	506,800
sawed.....	31	344	1,056,600	220,549	609,374	1,067,353
Machinery, (not specified).....	19	510	857,500	230,821	546,719	924,216
engines and boilers.....	31	1,142	1,453,639	575,597	1,115,823	2,027,357
Malt.....	3	27	77,000	11,679	194,653	254,915
Marble and stone work, (n. s.).....	9	321	210,200	198,278	143,040	414,477
tombstones.....	3	49	125,700	31,000	29,120	81,600
Masonry, brick and stone.....	17	188	60,120	80,888	51,977	170,731
Matches.....	3	37	7,700	7,050	7,690	36,240
Meat, packed, pork.....	1	12	150,000	6,000	300,000	320,000
Meters, gas.....	1	18	10,000	8,400	6,000	18,000
Mineral and soda waters.....	4	63	48,000	30,350	43,445	91,100
Oil, vegetable, linseed.....	2	30	175,000	10,800	294,900	317,000
floor-cloth.....	1	10	30,000	3,407	12,595	19,000
Paints, lead and zinc.....	5	177	890,000	63,500	829,203	1,281,320
Patterns and models.....	1	10	3,500	5,000	1,200	8,500
Plated ware.....	1	7	10,000	3,000	7,100	15,000
Printing, newspaper.....	15	376	571,000	316,221	276,227	825,845
job.....	14	245	282,592	110,495	121,354	332,593
Roofing materials.....	1	25	25,000	20,000	33,919	59,363
Saddlery and harness.....	28	151	133,792	65,679	102,636	222,128
Safes, doors, vaults, (fire-proof)...	3	39	59,000	24,100	24,648	75,233
Salt.....	9	64	92,000	27,700	48,057	105,400
Sash, doors and blinds.....	26	461	768,500	244,892	658,682	1,399,534
Saws.....	2	51	140,000	41,864	58,532	174,484
Ship building and repairing.....	15	256	208,146	152,568	212,829	434,539
Soap and candles.....	8	56	293,000	31,566	265,079	385,692

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
ALLEGHENY—Continued.						
Steel, cast.....	6	1,009	1,830,400	753,841	1,717,925	3,485,415
forged.....	1	45	200,000	60,000	120,913	200,000
springs.....	2	51	65,000	45,000	210,314	303,000
Stone and earthen ware.....	7	77	125,200	34,367	18,410	72,570
Tin, copper and sheet-iron ware...	80	464	451,692	179,274	392,175	781,211
Tobacco, (not cigars) and snuff...	12	328	297,300	89,954	188,010	630,325
cigars.....	62	189	103,315	61,776	71,278	231,075
Trunks, valises and satchels.....	1	5	7,000	2,800	3,700	10,000
Upholstery.....	4	53	85,200	15,100	55,645	102,000
Vinegar.....	4	10	9,976	1,285	12,858	22,519
Whips.....	2	21	14,000	5,500	3,888	14,500
Wire fabrics.....	1	5	20,000	2,500	4,786	12,600
Wooden-ware.....	2	32	46,000	18,000	41,500	78,500
Wood, turned and carved.....	6	31	16,450	10,688	5,840	27,550
Woolen goods.....	2	65	110,000	17,000	115,500	205,032
ARMSTRONG.						
Carriages and wagons.....	20	51	16,650	9,760	11,897	32,795
Clothing, men's.....	3	21	10,000	4,800	25,000	47,700
Coke.....	2	16	2,700	9,600	34,000	46,000
Flouring mill products.....	17	30	106,500	3,400	185,688	222,781
Iron, forged and rolled.....	3	433	1,600,000	304,441	1,494,997	2,009,424
pigs.....	5	552	640,000	225,911	503,170	846,177
castings, (not specified).....	5	15	16,450	6,136	13,594	22,302
stoves, heaters, &c.,	9	14	11,050	4,900	9,390	18,900
Leather, tanned.....	13	24	28,125	3,025	35,112	43,526
curried.....	10	17	13,765	2,475	40,908	53,406
Lumber, planed.....	1	6	8,000	3,000	6,050	12,000
sawed.....	9	58	137,000	24,368	106,648	198,209
Saddlery and harness.....	11	25	8,225	3,765	10,562	20,351
Salt.....	8	39	40,200	12,870	13,458	32,942
Sash, doors and blinds.....	1	17	50,000	7,000	40,000	75,000
Ship building and repairing.....	2	18	3,500	10,528	10,833	23,000
Tin, copper and sheet-iron ware...	7	14	9,700	1,250	12,141	21,530
Woolen goods.....	7	117	301,700	33,350	130,941	186,095
BEAVER.						
Agricultural implements.....	2	98	326,000	63,000	59,100	293,500
Bread and other bakery products,	10	17	5,400	2,650	20,900	35,275
Brick.....	10	145	91,000	45,150	21,267	145,710
Bridge building.....	1	20	7,000	10,000	45,363	62,628
Brooms and whisp brushes.....	4	8	3,300	1,150	8,012	12,310
Carriages and wagons.....	18	38	13,700	6,795	9,833	35,069
Clothing, men's.....	14	54	29,300	16,050	26,280	57,800
Coal oil, rectified.....	4	23	80,000	10,050	194,100	276,350
Cooperage.....	11	49	31,000	15,100	37,970	83,520
Cordage and twine.....	1	59	65,000	20,000	42,000	75,000
Cutlery.....	1	250	500,000	72,000	198,480	400,000
Drugs and chemicals.....	2	4	12,000	1,350	17,975	47,000
Edge tools and axes.....	1	22	4,000	10,000	2,180	15,000
Files.....	1	124	150,000	48,000	70,000	150,000
Flouring mill products.....	7	21	85,000	5,510	139,000	157,285
Glassware.....	1	107	45,000	42,500	66,950	129,000
Iron, bolts, nuts, washers, &c.....	1	15	150,000	13,000	95,460	125,000
castings, (not specified).....	3	19	23,000	8,000	18,105	38,250
castings, stoves, &c.....	4	65	43,000	44,655	64,230	148,850
Leather, tanned.....	7	15	29,500	3,300	19,298	32,730
curried.....	5	7	500	450	9,702	12,337

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
BEAVER—Continued.						
Lime.....	4	24	18,100	8,600	6,723	21,870
Lumber, planed	3	32	44,500	19,500	48,100	79,000
sawed.....	13	73	107,300	20,012	115,610	179,549
Machinery.....	1	7	20,000	4,000	18,000	25,000
Marble and stone work, (n. s.) ...	7	15	6,140	6,650	10,150	22,100
tombstones.....	4	17	14,500	9,360	10,100	27,750
Masonry, brick and stone.....	39	117	2,935	21,635	16,130	59,550
Paper, wrapping.....	1	32	35,000	10,930	19,825	37,429
Saddlery and harness.....	9	16	6,850	2,180	6,085	15,330
Sash, doors and blinds.....	4	66	52,500	34,100	94,250	162,000
Ship building and repairing.....	4	47	38,000	20,400	17,600	60,800
Stone and earthen ware.....	9	79	48,400	21,100	10,217	51,750
Tin, copper and sheet-iron ware ..	12	27	14,600	6,150	13,415	30,405
Tobacco, cigars.....	5	13	2,800	3,375	4,710	16,550
Wire.....	1	10	100,000	9,000	47,680	75,000
Woolen goods.....	5	123	130,000	39,925	96,860	175,728
BEDFORD.						
Carriages and wagons.....	23	44	14,225	3,885	7,367	22,403
Clothing, men's.....	8	5	1,745	1,650	10,900	16,800
Flouring-mill products	7	17	60,000	4,570	74,035	83,701
Furniture.....	13	27	7,720	2,535	4,553	12,205
Iron, pigs.....	2	173	550,000	76,184	130,297	226,575
castings.....	5	19	27,000	4,730	11,900	26,639
Leather, tanned	24	73	277,200	17,290	284,170	385,935
curried.....	9	14	4,100	1,000	16,436	21,566
Lumber, sawed.....	3	23	8,000	5,540	12,625	21,000
Machinery.....	2	34	23,000	22,000	9,125	32,000
Masonry, brick and stone.....	6	17	335	825	6,600	11,500
Millinery.....	6	18	695	850	7,100	10,700
Saddlery and harness.....	12	22	4,690	1,957	9,300	17,720
Tin, copper and sheet-iron ware..	10	19	11,760	2,300	6,875	13,335
Woolen goods.....	4	34	35,500	6,320	18,984	26,923
BERKS.						
Agricultural implements	10	64	66,050	27,329	29,810	85,675
Boats.....	3	121	59,500	46,470	106,401	155,801
Boots and shoes.....	11	177	70,900	60,150	89,622	170,417
Brass founding and finishing.....	1	13	28,000	7,020	6,730	25,000
Bread and other bakery products,	3	13	3,100	5,528	10,090	19,291
Brick	29	386	191,160	81,416	97,915	260,110
Brooms and wisp-brushes.....	7	26	7,350	1,910	4,495	14,300
Carpets, rag.....	13	27	2,775	4,423	14,160	25,175
other than rag	2	16	5,500	2,525	8,900	12,400
Carriages and wagons.....	54	185	67,950	40,846	44,064	137,233
Cars, freight and passenger	1	20	10,000	6,000	75,000	106,500
Charcoal.....	3	14	350	2,850	22,336	32,000
Clothing, men's.....	59	307	88,375	54,647	137,143	228,801
Coffins	2	8	5,500	2,240	8,400	18,924
Confectionery	2	6	6,000	1,800	5,860	13,050
Cordage and twine.....	1	46	100,000	10,000	114,800	145,600
Cotton goods.....	5	341	198,400	77,450	175,574	299,550
Fertilizers	2	12	22,000	5,200	29,125	37,500
Flouring-mill products	63	154	557,550	29,555	1,127,265	1,308,233
Furniture.....	37	130	50,475	27,013	35,904	93,638
Gas.....	1	12	150,000	8,300	24,533	72,471

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
<i>BERKS—Continued.</i>			<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>
Glue.....	12	17	12,000	2,880	8,972	14,000
Hats and caps.....	16	432	391,188	177,460	458,299	951,880
Hubs and wagon material.....	2	19	13,500	5,600	5,410	20,328
Iron, blooms.....	3	16	62,500	5,133	40,415	59,220
forged and rolled.....	19	1,027	2,199,659	581,260	2,196,684	2,983,755
bolts, nuts, washers, &c.....	2	26	110,000	13,564	52,309	71,000
nails and spikes, cut, &c.....	3	140	180,000	66,250	288,472	383,500
wrought, tubes.....	1	241	750,000	108,410	437,206	569,634
pigs.....	17	1,244	2,378,600	332,945	1,415,136	2,041,025
castings, (not specified).....	12	421	505,500	171,283	348,888	616,609
stoves, heaters, &c.,	3	71	121,000	40,340	55,002	101,950
Leather, tanned.....	38	113	180,765	26,191	281,499	348,564
curried.....	39	74	111,525	15,177	250,961	314,831
Lime.....	57	172	86,450	34,878	96,433	185,979
Liquors, distilled.....	2	9	22,000	3,025	28,689	92,520
malt.....	5	66	421,000	36,720	150,715	257,679
Lumber, planed.....	1	26	70,000	15,000	28,000	50,000
sawed.....	15	46	43,200	11,000	43,250	85,666
Machinery, (not specified).....	6	68	72,990	23,090	14,480	68,750
engines and boilers...	3	112	95,500	40,600	42,350	107,640
Malt.....	1	6	40,000	5,000	34,100	50,000
Marble and stone work (n. s.)...	3	20	16,000	9,900	18,200	31,500
tombstones.....	18	63	40,135	16,171	18,428	50,322
Masonry, brick and stone.....	18	125	690	19,630	44,488	99,900
Millinery.....	8	31	8,820	3,200	7,275	15,320
Oil, vegetable, linseed.....	3	6	8,500	1,140	20,750	24,900
Paper, (not specified).....	1	13	30,000	4,000	21,400	55,000
printing.....	3	50	68,000	15,000	76,488	129,679
Saddlery and harness.....	33	85	18,500	13,773	26,652	56,859
Sash, doors and blinds.....	6	130	56,500	61,417	112,852	211,861
Scales and balances.....	1	9	25,000	3,600	9,375	15,300
Stone and earthen ware.....	13	49	72,431	15,345	10,601	54,125
Tin, copper and sheet-iron ware..	33	95	59,985	18,502	47,381	101,969
Tobacco, cigars.....	38	282	89,500	49,910	86,198	196,543
Woolen goods.....	13	227	197,780	57,473	158,795	285,435
<i>BLAIR.</i>						
Brass founding and finishing.....	1	36	40,000	17,333	15,000	45,600
Bread and other bakery products,	7	11	4,000	1,460	5,742	11,930
Brick.....	5	73	16,000	12,830	4,500	22,100
Carpets, rag.....	4	6	625	240	4,070	10,550
Carriages and wagons.....	13	30	6,675	5,975	3,926	18,880
Cars, freight and passenger.....	3	384	600,000	226,231	397,100	715,835
Clothing, men's.....	17	37	7,765	8,022	25,722	48,150
Cooperage.....	4	20	5,000	2,000	8,970	13,700
Flouring-mill products.....	36	79	334,300	19,980	678,938	812,015
Furniture.....	15	35	16,350	7,030	9,294	26,025
Gas.....	1	4	123,800	3,400	3,700	24,687
Iron, blooms.....	7	186	264,000	81,700	274,050	435,657
forged and rolled.....	2	125	105,000	86,000	317,160	399,030
nails and spikes, cut, &c.....	2	57	55,000	41,000	164,300	224,250
pigs.....	8	703	1,176,300	245,376	483,287	1,039,706
castings.....	9	112	155,500	47,497	107,334	184,650
Leather, tanned.....	11	33	57,200	9,295	65,098	111,080
curried.....	5	6	6,400	75	10,835	13,594
Lime.....	3	58	19,000	22,800	9,470	34,000
Liquors, malt.....	6	12	40,000	3,420	7,249	22,000

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
BLAIR—Continued.						
Lumber, planed	7	86	104,800	62,580	214,635	413,765
Machinery, railroad repairing.....	3	761	590,000	391,375	416,540	823,199
engines and boilers....	4	32	42,500	13,700	34,810	46,500
Masonry, brick and stone.....	14	43	1,975	10,167	9,187	28,160
Millinery	17	52	14,875	3,955	21,350	37,100
Paper, printing.....	1	39	80,000	14,000	41,200	88,000
Printing, newspaper	7	47	41,000	13,530	11,395	56,270
Saddlery and harness	9	20	6,550	3,380	12,889	24,300
Tin, copper and sheet-iron ware....	13	36	20,050	10,155	21,423	44,450
Tobacco, cigars.....	4	25	9,800	7,536	8,620	21,800
Woolen goods.....	4	20	24,000	3,100	17,135	23,880
BRADFORD.						
Agricultural implements	7	44	57,800	22,740	31,322	83,994
Boots and shoes.....	2	12	4,000	5,500	5,210	13,000
Bridge building.....	1	35	6,000	15,000	25,000	50,000
Carriages and wagons.....	44	123	92,775	39,490	32,998	130,776
Cooperage.....	26	55	33,165	11,335	10,690	46,061
Flouring-mill products	17	49	200,200	17,430	380,327	432,207
Furniture.....	12	54	33,500	14,015	24,775	55,371
Iron, castings, (not specified).....	5	27	33,500	13,100	16,562	38,700
stoves	1	5	10,000	3,000	4,800	13,690
Leather, tanned	9	94	239,450	36,600	330,167	529,637
curried.....	5	9	10,150	1,480	17,236	21,954
Lumber, sawed	59	286	301,500	57,376	169,393	349,315
Machinery	2	20	32,000	9,000	6,578	22,950
Plaster.....	5	9	8,500	1,350	7,851	11,978
Saddlery and harness	13	35	31,400	9,145	18,416	35,240
Sash, doors and blinds	6	56	55,700	20,926	41,959	66,767
Tin, copper and sheet-iron ware ..	2	6	3,000	2,472	5,650	11,800
Toys.....	1	26	15,000	12,000	5,000	24,200
Wood, turned and carved.....	1	3	1,800	200	720	10,750
Woolen goods.....	5	33	48,500	6,450	46,914	78,252
BUCKS.						
Agricultural implements	8	67	118,800	31,822	24,606	97,140
Boots and shoes.....	9	119	56,111	27,822	54,171	103,614
Boxes, cigar.....	5	17	10,150	3,720	15,510	23,520
Bread and other bakery products,	5	12	10,500	3,500	13,760	32,500
Brick	4	29	10,000	5,480	2,177	12,125
Brooms and wisp-brushes.....	4	13	1,300	2,100	16,591	21,525
Carpets, other than rag.....	2	107	108,000	23,000	77,400	113,200
Carriages and wagons.....	28	171	87,522	48,000	51,483	159,550
Clothing, men's.....	16	42	6,865	3,532	12,151	33,160
Cordage and twine.....	1	24	31,000	7,200	4,280	19,701
Cotton goods.....	2	72	80,000	18,382	53,072	104,212
Flouring-mill products	55	124	462,290	19,907	915,207	1,063,894
Furniture.....	9	20	19,910	4,875	2,441	12,088
Hosiery	2	170	95,000	31,034	97,938	124,633
Hubs and wagon material	2	10	17,500	1,925	3,750	13,601
Iron, forged and rolled	2	61	115,000	22,000	59,450	97,900
pigs.....	1	225	400,000	152,000	114,000	185,000
castings, stoves, &c.....	1	17	36,000	13,000	13,780	33,067
Leather, tanned.....	14	32	62,000	5,672	58,408	73,461
curried	12	24	21,850	2,980	64,193	76,150
Lime.....	11	132	24,000	11,594	41,167	96,060
Lumber, sawed.....	31	130	221,300	48,580	262,108	388,122
Machinery	1	9	4,000	2,500	1,500	22,800

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
BUCKS—Continued.						
Meat packed, pork.....	1	6	1,000	1,500	11,700	13,200
Oil, vegetable, linseed.....	2	2	3,000		10,560	11,625
Paper, printing.....	1	18	18,720	3,167	19,673	25,480
Printing, newspaper.....	6	46	48,700	12,900	16,507	70,825
Saddlery and harness.....	24	64	28,960	11,100	33,132	71,134
Sash, doors and blinds.....	4	38	41,700	17,500	12,912	41,250
Ship building and repairing.....	4	25	9,000	5,284	5,826	13,900
Stone and earthen ware.....	7	40	17,700	9,992	7,203	22,540
Tin, copper and sheet-iron ware...	17	42	21,950	7,775	20,433	42,513
Tobacco (not cigars) and snuff....	1	6	40,009	4,000	10,100	45,150
cigars.....	33	728	84,725	157,017	191,971	480,522
Wood, turned and carved.....	7	52	47,600	17,518	22,055	53,457
BUTLER.						
Agricultural implements.....	6	19	16,200	4,306	8,540	16,030
Carriages and wagons.....	31	63	17,845	8,725	11,075	36,095
Clothing, men's.....	7	20	10,100	2,200	7,400	13,538
Flouring-mill products.....	8	18	81,000	5,750	119,825	158,030
Furniture.....	12	35	28,070	3,970	5,507	16,894
Iron castings, (not specified).....	6	17	28,500	6,010	11,170	23,245
stoves, heaters, &c.,.....	4	14	16,000	4,150	5,820	12,730
Leather, tanned.....	12	23	25,350	4,850	24,627	38,221
curried.....	5	6	10,900	900	17,404	20,935
Liquors, distilled.....	4	8	15,100	3,020	12,970	33,360
Lumber, planed.....	2	12	7,600	2,400	25,800	30,500
sawed.....	4	13	7,000	1,644	15,482	28,700
Masonry, brick and stone.....	10	14	427		8,950	21,100
Saddlery and harness.....	14	28	13,170	3,005	10,313	29,737
Woolen goods.....	4	43	50,200	6,970	34,500	49,050
CAMBRIA.						
Boots and shoes.....	1	8	10,000	5,380	12,343	20,571
Bread and other bakery products.	1	5	4,000	1,660	7,100	11,500
Brick.....	3	62	32,000	33,286	4,955	49,300
Carriages and wagons.....	16	42	17,600	13,471	16,607	47,258
Clothing, men's.....	4	18	8,400	7,482	9,781	23,194
Coke.....	1	87	20,000	49,372	146,326	225,898
Flouring-mill products.....	12	22	47,800	5,550	66,105	88,338
Furniture.....	11	80	39,960	25,850	31,719	86,050
Gas.....	1	4	50,000	2,900	1,360	14,100
Iron, forged and rolled.....	1	1,668	500,000	768,807	4,424,397	5,539,419
pigs.....	1	150	300,000	135,292	565,577	695,196
castings.....	4	67	100,700	31,139	64,642	118,572
Leather, tanned.....	13	34	64,150	9,538	58,580	89,605
curried.....	4	6	4,750	1,150	8,646	11,696
Liquors, malt.....	8	26	69,300	8,140	19,160	39,000
Lumber, planed.....	3	10	7,400	2,306	13,150	27,480
sawed.....	35	208	198,400	68,653	76,689	260,602
Machinery, (not specified).....	2	55	220,000	33,268	27,363	69,411
engines and boilers.....	1	13	25,000	7,371	1,723	10,118
Masonry, brick and stone.....	2	59	5,800	30,823	4,687	41,610
Saddlery and harness.....	8	17	10,000	4,832	10,865	21,421
Stone and earthen ware.....	1	10	20,000	3,600	1,400	10,000
Tin, copper and sheet-iron ware...	8	29	18,550	9,950	12,449	38,075
Wood, turned and carved.....	3	14	16,500	3,300	1,208	16,500
Woolen goods.....	2	65	161,500	45,254	197,240	270,700

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments,	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
CAMERON.						
Flouring-mill products	2	4	13,000	1,000	75,375	92,925
Leather, tanned.....	1	38	125,000	15,600	148,584	187,000
Lumber, sawed.....	21	227	232,000	92,240	284,345	532,595
Sash, doors and blinds.....	2	20	24,000	13,000	16,700	42,000
CARBON.						
Boots and shoes	4	37	18,200	13,393	14,759	36,708
Brass founding and finishing.....	2	5	11,000	2,200	6,265	10,600
Cars, freight and passenger.....	1	317	500,000	217,313	503,776	721,089
Clothing, men's.....	7	63	32,000	17,582	34,700	62,050
Flouring-mill products	7	14	34,500	1,700	328,920	37,346
Gas	1	2	28,000	1,877	3,347	11,586
Gunpowder.....	1	4	20,000	2,000	2,000	17,500
Iron, pigs.....	2	140	510,000	74,000	392,000	559,282
castings, (not specified)	3	43	52,600	18,953	51,740	77,600
stoves, heaters, &c.....	1	61	75,000	35,000	37,200	90,000
Leather, tanned	4	64	79,200	26,150	204,227	232,782
carried	3	6	13,000	2,150	20,052	24,912
Liquors, malt.....	4	10	27,500	2,911	11,289	17,852
Lumber, sawed.....	33	499	629,550	227,080	178,075	467,727
Machinery, engines and boilers....	2	86	108,000	42,546	105,820	164,713
Paints.....	2	19	55,000	10,180	9,800	36,000
Sash, doors and blinds.....	2	14	18,600	5,100	12,400	19,382
School slates.....	1	14	1,000	3,744	6,600	13,000
Tin, copper and sheet-iron ware ..	4	8	11,300	3,010	7,650	16,790
Tobacco, cigars.....	3	13	11,250	3,560	5,250	12,111
Wire-work.....	2	11	100,000	7,200	81,638	105,000
CENTRE.						
Agricultural implements.....	5	32	25,333	13,694	23,320	46,895
Brick	1	28	160,000	12,000	8,625	42,000
Carriages and wagons.....	28	58	14,675	6,609	14,304	41,150
Clothing, men's.....	8	27	2,345	4,518	14,980	34,112
women's.....	8	14	2,920	517	9,402	18,492
Edge-tools and axes.....	2	54	7,100	25,144	24,038	52,173
Flouring-mill products.....	22	53	225,050	14,522	454,544	550,923
Glass, window.....	1	58	80,000	42,300	35,925	90,000
Iron, blooms.....	4	57	139,000	24,136	164,254	234,087
forged and rolled.....	6	60	97,000	17,656	277,877	322,872
pigs.....	4	211	286,000	100,110	146,026	343,342
castings.....	9	50	43,666	19,319	30,009	59,130
Leather, tanned	15	42	87,525	7,000	72,264	100,827
Lime.....	2	16	13,000	7,000	8,044	20,000
Lumber, planed	4	63	125,000	35,200	121,250	191,655
sawed	25	154	195,200	59,390	148,368	296,936
Machinery, engines and boilers....	1	18	20,000	9,650	19,740	76,600
Saddlery and harness.....	14	19	5,745	1,248	5,653	13,502
Tin, copper and sheet-iron ware ..	9	20	7,600	4,157	8,604	18,160
Wire.....	1	6	10,000	3,341	30,015	45,033
Woolen goods.....	4	39	40,000	10,306	30,296	50,294
CHESTER.						
Agricultural implements.....	11	83	103,000	36,235	24,378	90,611
Bookbinding.....	1	9	6,000	3,375	20,400	30,000
Bread and other bakery products.	4	25	9,200	5,948	36,390	54,724
Brick.....	14	175	83,500	45,350	19,876	101,252
Carriages and wagons.....	32	122	85,255	43,694	33,290	126,066
Cheese.....	1	3	4,000	866	7,285	12,000

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments,	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
CHESTER—Continued.			Dolls.	Dolls.	Dolls.	Dolls.
Cider	14	24	7,500	949	22,382	37,470
Clothing, men's.....	19	88	20,750	13,801	37,048	65,705
Coffins.....	10	16	12,850	550	4,631	14,544
Confectionery.....	3	16	26,500	3,482	15,872	34,400
Cooperage	7	46	15,900	13,000	16,855	39,290
Cotton goods	5	149	113,500	19,206	55,190	102,810
Fertilizers	7	23	32,900	2,250	45,857	52,310
Flouring-mill products	99	231	633,260	33,662	1,153,271	1,379,726
Food preparations, animal.....	5	9	3,300	540	8,247	13,878
Furniture	19	50	36,090	8,026	9,288	31,943
Gas	1	6	62,000	3,500	5,340	21,720
Hardware	2	7	9,300	1,668	9,932	19,000
Hubs and wagon material.....	6	66	87,500	29,000	59,654	123,250
Iron, blooms.....	1	25	40,000	12,215	48,660	68,850
forged and rolled.....	10	2,209	1,240,000	717,529	2,819,129	4,046,595
nails and spikes, cut, &c.....	1	75	75,000	40,000	266,000	350,000
Iron, pigs.....	2	204	305,000	72,000	327,619	406,475
castings, (not specified).....	7	89	72,300	44,958	58,726	120,156
stoves, heaters, &c.....	1	49	66,000	25,000	28,745	65,000
Leather, tanned.....	6	27	63,000	5,269	43,109	55,100
cured.....	3	4	16,000	725	27,210	33,020
Lime.....	19	135	129,073	42,355	59,657	157,944
Lumber, planed.....	2	14	5,500	4,880	5,500	14,000
sawed.....	23	55	60,450	9,199	81,924	122,970
Machinery.....	5	212	117,400	105,700	400,073	518,727
Marble and stone work.....	3	8	3,000	1,024	4,750	10,000
Masonry, brick and stone.....	10	47	4,880	13,900	23,400	43,435
Millinery.....	7	24	10,200	860	6,181	10,550
Paper, (not specified).....	16	200	270,000	68,378	137,469	247,458
printing.....	5	56	118,000	14,880	97,831	155,026
wrapping.....	5	45	59,500	15,450	50,430	105,800
Printing and publishing.....	2	16	16,000	7,625	15,280	41,500
Saddlery and harness.....	26	57	22,135	8,020	23,492	46,382
Sash, doors and blinds.....	5	15	11,100	4,950	3,785	13,050
Ship building and repairing.....	2	14	8,000	7,300	5,210	15,400
Stone and earthen ware.....	5	48	46,000	17,800	10,304	39,323
Tin, copper and sheet-iron ware ..	29	107	80,510	26,454	55,322	116,494
Tobacco, cigars.....	3	16	4,150	4,780	7,310	26,180
Wood, turned and carved	1	20	15,000	8,000	14,000	36,700
Wool-carding and cloth-dressing..	7	132	121,500	39,800	162,312	251,900
Woolen goods.....	10	226	261,200	84,362	261,692	432,595
CLARION.						
Agricultural implements.....	5	10	5,400	3,350	7,425	22,150
Boats.....	16	80	9,450	19,150	53,820	105,480
Carriages and wagons.....	13	26	6,483	4,868	3,921	17,240
Coke.....	1	5	2,000	1,300	13,350	15,523
Flouring-mill products.....	1	2	8,000	75	10,100	12,000
Iron, pigs.....	3	240	127,000	41,789	157,912	248,789
castings.....	6	18	16,900	5,520	12,941	28,451
Leather, tanned	15	19	17,560	2,727	17,009	28,314
curried.....	13	13	8,237	325	18,161	22,460
Liquors, distilled.....	3	15	57,900	3,575	22,602	74,439
Lumber, planed	2	7	11,000	1,600	4,000	11,500
sawed.....	27	158	143,900	40,152	91,620	208,200
Saddlery and harness.....	8	15	4,876	2,600	5,148	11,440
Woolen goods.....	2	37	99,000	11,000	33,130	55,995

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
CLEARFIELD.						
Clothing, men's.....	2	7	4,570	1,700	5,200	10,050
Flouring-mill products.....	6	10	22,500	2,568	46,811	53,586
Iron, castings.....	5	14	18,800	4,200	3,453	12,770
Leather, tanned.....	6	13	21,750	2,650	15,466	23,019
curried.....	4	7	12,750	1,150	10,284	12,573
Lumber, planed.....	2	12	22,500	3,870	9,000	14,000
sawed.....	44	280	854,825	102,048	162,942	566,941
Machinery, engines and boilers...	1	5	20,000	3,655	8,871	13,280
Marble-work, tombstones.....	3	11	2,850	1,375	4,200	11,800
Sash, doors and blinds.....	1	6	15,000	3,000	8,300	12,000
Tin, copper and sheet-iron ware..	6	12	5,900	2,600	11,810	22,950
CLINTON.						
Agricultural implements.....	5	9	3,100	2,600	2,910	10,405
Bread and other bakery products.	7	11	6,230	5,200	17,442	29,320
Brick.....	7	64	35,600	34,050	5,050	64,120
Carriages and wagons.....	9	30	13,350	13,450	9,485	35,890
Clothing, men's.....	10	54	26,700	21,700	32,658	81,450
Edge-tools and axes.....	2	48	60,000	26,500	34,580	74,500
Flouring-mill products.....	10	27	193,000	10,470	225,218	284,016
Furniture, (not specified).....	5	19	13,200	9,600	5,300	24,600
chairs.....	2	6	3,000	2,750	6,700	12,000
Iron, blooms.....	1	30	10,000	8,000	72,000	80,000
pigs.....	1	10	20,000	3,750	48,000	60,000
castings, (not specified)....	4	12	22,000	6,200	15,810	27,665
stoves, heaters, &c.....	1	1	10,000	500	1,250	2,000
Leather, tanned.....	8	19	52,100	7,500	63,536	89,546
curried.....	6	6	9,500	700	15,676	19,390
Liquors, malt.....	5	8	22,800	1,800	4,796	14,600
Lumber, planed.....	1	12	31,800	6,000	60,000	72,000
sawed.....	47	.....	2,204,700	356,505	1,271,275	2,113,946
Machinery, engines and boilers...	2	31	13,000	18,800	19,550	43,000
Printing and publishing.....	2	10	14,500	5,000	3,980	19,500
Saddlery and harness.....	6	12	6,000	2,800	5,450	14,425
Sash, doors and blinds.....	2	58	44,500	34,700	94,700	205,000
Tin, copper and sheet-iron ware..	4	12	16,000	5,320	11,620	25,000
Woolen goods.....	2	23	20,000	5,500	10,980	21,097
COLUMBIA.						
Agricultural implements.....	3	10	6,700	2,200	11,342	15,925
Carriages and wagons.....	19	52	22,350	12,297	10,381	47,195
Cars, freight and passenger.....	1	78	36,000	44,049	274,094	348,500
Clothing, men's.....	5	15	5,800	2,115	10,087	15,700
Confectionery.....	1	5	6,000	580	9,144	14,650
Cooperage.....	2	13	9,100	4,900	8,800	22,055
Flouring-mill products.....	4	12	40,000	6,000	193,877	215,651
Iron, pigs.....	2	102	235,000	65,590	420,268	518,266
castings.....	8	78	148,200	44,337	188,286	264,724
Leather, tanned.....	12	20	61,800	5,300	69,685	92,254
curried.....	10	10	16,500	200	14,864	18,615
Lime.....	9	27	55,500	4,975	25,435	54,823
Lumber, planed.....	3	69	81,000	41,200	124,487	204,500
sawed.....	7	23	35,800	7,150	14,750	30,630
Machinery.....	2	48	50,800	25,876	81,680	110,056
Tin, copper and sheet-iron ware..	11	25	19,500	5,111	16,717	29,015
Woolen goods.....	4	30	50,800	2,680	25,672	29,232

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital..... Dolls.	Wages..... Dolls.	Materials..... Dolls.	Products..... Dolls.
CRAWFORD.						
Agricultural implements	5	71	83,040	42,700	26,710	78,452
Boats, canal.....	5	14	2,600	2,000	2,700	13,550
Boots and shoes.....	3	15	13,000	9,560	10,388	22,337
Bread and other bakery products..	6	24	18,000	12,560	31,871	54,683
Brick.....	7	80	10,000	20,600	13,935	53,500
Carriages and wagons.....	41	137	72,350	61,080	46,112	155,740
Cheese.....	8	36	24,500	6,431	120,075	136,935
Clothing, men's.....	17	147	98,100	93,214	199,652	321,799
Coal oil, rectified.....	8	95	325,000	94,860	2,067,756	2,533,615
Confectionery.....	2	8	6,000	2,000	7,440	16,830
Cooperage.....	56	210	73,640	84,550	126,320	303,892
Explosives and fire-works.....	2	31	315,000	98,322	155,500	460,000
Flouring mill products	12	38	202,500	14,137	155,307	182,219
Frames, mirror and picture.....	3	8	9,800	3,955	21,154	31,202
Furniture.....	17	84	86,250	42,055	36,560	152,000
Iron, castings	5	57	78,400	32,750	73,365	130,690
Jewelry.....	2	7	4,000	4,784	4,075	10,675
Leather, tanned.....	21	44	76,950	14,848	112,804	146,082
curried	19	26	46,200	11,360	89,943	118,476
Liquors, malt.....	8	35	72,000	18,845	68,989	169,620
Lumber, planed	9	82	151,551	61,604	558,450	704,033
sawed	95	515	509,500	199,003	380,656	905,263
Machinery, (not specified).....	7	38	37,500	24,174	36,502	95,050
railroad repairing.....	1	306	246,695	218,701	147,925	366,626
engines and boilers...	5	454	687,850	445,800	661,600	1,368,800
Mineral and soda waters.....	1	4	5,000	5,000	816	17,000
Ores.....	1	25	15,000	6,000	3,000	10,500
Printing, newspaper	4	35	30,000	17,700	9,175	35,569
Saddlery and harness.....	20	56	32,750	21,447	27,050	66,705
Sash, doors and blinds.....	5	45	155,000	32,835	42,689	102,920
Tin, copper and sheet-iron ware..	23	79	84,400	40,600	83,244	151,155
Tobacco, cigars.....	9	28	9,300	14,500	29,350	75,075
Wool carding and cloth dressing..	2	6	4,000	650	7,641	10,065
Woolen goods.....	4	99	172,000	41,540	122,690	198,854
CUMBERLAND.						
Agricultural implements	8	51	46,917	19,610	27,752	68,875
Boots and shoes.....	3	33	23,400	7,100	30,598	43,536
Bread and other bakery products..	8	15	9,900	2,650	9,741	18,090
Brick.....	6	61	14,650	9,640	5,095	22,540
Carriages and wagons.....	22	103	60,800	32,110	73,937	138,783
Clothing, men's.....	21	125	47,600	18,183	70,263	116,050
Flouring mill products.....	34	69	334,000	11,425	750,218	849,544
Furniture.....	14	35	21,850	6,413	8,290	31,097
Gas.....	1	4	87,000	2,300	4,075	10,846
Iron, blooms.....	2	28	15,000	13,500	90,440	126,400
pigs.....	2	112	275,000	28,500	57,200	90,380
castings.....	5	26	42,240	9,036	14,607	43,400
Leather, tanned.....	13	27	67,450	4,727	82,244	105,535
curried	10	12	35,050	2,600	66,870	80,215
Lime.....	7	28	12,200	6,500	17,207	26,806
Liquors distilled.....	1	12	36,000	9,000	12,600	72,400
malt	2	7	24,000	1,250	7,205	13,000
Lumber, planed	3	27	51,200	8,891	38,440	66,680
sawed	3	28	37,000	7,900	5,500	21,500
Machinery, engines and boilers...	1	8	4,062	4,200	8,000	15,000
Masonry, brick and stone.....	6	17	3,250	4,920	13,450	22,140
Matches.....	1	5	6,000	800	4,000	12,000

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages	Materials.....	Products
			Dolls.	Dolls.	Dolls.	Dolls.
CUMBERLAND—Continued.						
Paper, (not specified).....	3	61	226,820	20,746	47,242	146,300
printing.....	1	51	95,000	14,000	70,000	153,000
writing	1	134	225,000	39,000	134,500	250,000
Printing, newspaper.....	3	12	10,150	2,215	2,926	17,025
Saddlery and harness.....	20	40	12,550	5,020	13,160	30,949
Sash, doors and blinds.....	2	9	4,500	4,900	7,000	22,000
Stone and earthen ware.....	3	10	19,600	3,733	1,002	11,750
Tin, copper and sheet-iron ware...	14	33	29,600	6,580	13,775	40,900
Tobacco, cigars.....	6	27	6,550	5,794	6,730	19,650
Woolen goods.....	5	18	15,500	1,940	8,379	14,346
DAUPHIN.						
Agricultural implements.....	9	37	22,800	7,275	11,086	30,202
Belting and hose, (leather).....	1	3	5,000	1,812	8,914	15,000
Boats.....	2	13	4,500	2,800	3,680	10,500
Bookbinding.....	1	22	15,000	6,500	92,800	100,000
Boots and shoes.....	1	65	23,500	26,000	37,800	72,000
Bread and other bakery products.	16	55	32,800	17,840	44,760	80,740
Brick	14	210	99,634	42,899	22,542	88,110
Brooms and whisp brushes.....	2	18	9,500	4,500	24,557	30,113
Carriages and wagons.....	15	95	67,800	34,488	35,865	120,315
Cars, freight and passenger.....	4	216	115,770	79,780	577,107	1,120,227
Clothing, men's.....	16	51	15,375	12,990	19,499	39,800
Coffee and spices, ground.....	2	7	4,500	1,965	38,160	41,800
Confectionery.....	5	17	2,700	3,600	10,473	18,300
Cooperage.....	6	20	14,700	5,350	23,900	34,130
Cotton goods.....	2	282	251,500	53,200	247,945	326,600
Flouring mill products.....	32	89	380,000	17,195	715,146	879,844
Furniture.....	16	72	33,975	29,350	21,767	72,500
Gas.....	1	14	300,000	9,092	27,045	60,115
Iron, blooms.....	1	20	6,000	3,000	44,200	49,300
forged and rolled	4	802	879,000	504,004	2,111,744	2,791,554
nails and spikes, cut, &c....	1	75	175,000	51,428	433,931	400,000
pigs.....	7	294	582,800	132,320	713,271	980,767
castings.....	12	187	313,250	93,400	275,584	436,260
Leather, tanned.....	16	50	140,001	16,730	130,407	182,203
carried.....	7	18	50,000	7,450	75,744	92,484
morocco, tanned, &c.....	1	7	18,000	2,800	23,333	35,000
Lime.....	29	79	26,200	13,393	32,191	54,861
Liquors, distilled.....	3	16	41,000	6,600	30,000	139,528
malt	4	16	30,600	6,000	18,956	32,402
Lumber, planed.....	5	68	237,000	39,840	202,100	298,596
sawed.....	18	212	734,700	88,420	546,416	795,784
Machinery, (not specified).....	14	438	424,150	220,980	597,293	861,951
Machinery, engines and boilers...	4	83	102,500	42,000	89,100	155,300
Malt.....	1	12	80,000	4,000	51,250	70,000
Marble and stone work	3	14	12,100	5,600	9,450	18,335
Printing, newspaper.....	3	117	110,000	78,000	99,600	215,000
Saddlery and harness.....	17	35	12,625	5,290	14,411	30,525
Sash, doors and blinds.....	7	87	128,600	42,300	127,134	254,000
Steel, Bessemer.....	2	217	558,000	104,000	1,080,000	1,405,000
Stone and earthen ware.....	3	25	27,300	6,700	5,580	27,700
Tin, copper and sheet-iron ware...	21	75	60,900	20,514	35,008	83,403
Tobacco, cigars.....	6	39	12,400	16,800	9,370	35,000
Woolen goods.....	3	20	21,500	4,700	20,400	26,960

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.		Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products
DELAWARE.				Dolls.	Dolls.	Dolls.	Dolls.
Boots and shoes.....	3	51	17,000	12,180	22,800	40,447	
Brick.....	13	221	147,533	52,252	31,436	122,040	
Brushes.....	1	26	18,000	15,600	4,000	24,000	
Carriages and wagons.....	11	28	9,700	7,025	4,645	20,435	
Cars, freight and passenger.....	1	48	6,253	10,500	16,200	33,100	
Cooperage.....	1	13	1,000	1,500	20,000	36,000	
Cotton goods, (not specified).....	19	2,257	2,233,000	691,886	2,208,191	3,582,995	
thread, twine and yarn.....	9	319	459,680	87,438	508,180	657,205	
Dye woods and stuffs, ground.....	1	18	15,000	8,000	65,000	79,400	
Fertilizers.....	1	5	9,000	1,782	6,682	12,450	
Flouring mill products.....	27	79	150,600	21,102	453,824	547,109	
Gas.....	1	7	51,800	3,000	14,230	21,767	
Hats and caps.....	2	5	3,700	996	5,785	12,480	
Kaolin and ground earth.....	1	25	15,066	9,000	2,132	20,250	
Leather, dressed skins.....	1	8	25,000	3,000	16,110	25,000	
tanned.....	1	5	15,000	1,500	23,660	29,654	
curried.....	1	4	7,000	1,500	30,474	36,468	
Lumber, sawed.....	18	53	108,100	18,195	113,525	180,567	
Machinery, (not specified).....	2	165	109,372	56,058	45,242	119,000	
railroad repairing.....	1	25	100,000	18,000	28,000	40,000	
engines and boilers.....	2	191	152,829	66,524	44,155	173,750	
Masonry, brick and stone.....	3	48	6,300	19,300	38,737	61,732	
Molasses and sugar, refined.....	1	87	125,000	48,000	608,220	781,140	
Paper, not specified.....	1	15	64,500	3,750	24,000	38,000	
printing.....	2	120	232,000	35,000	236,080	345,000	
Printing and publishing.....	1	10	10,000	4,000	4,000	20,000	
Saddlery and harness.....	7	13	10,300	3,391	8,629	17,857	
Sash, doors and blinds.....	2	39	93,000	17,360	45,500	81,500	
Ship building and repairing.....	6	606	134,796	286,794	280,117	612,400	
Soap and candles.....	2	7	1,000	1,130	10,400	12,700	
Tin, copper and sheet-iron ware...	7	19	3,800	5,748	7,988	19,050	
Tobacco, cigars.....	4	16	17,400	3,476	3,334	14,365	
Woolen goods.....	23	1,357	1,262,740	463,406	1,654,418	2,630,262	
Worsted goods.....	1	97	150,478	24,159	46,154	70,669	
ELK.							
Carriages and wagons.....	3	8	4,150	5,820	5,970	14,599	
Flouring mill products.....	2	2	8,000	900	10,760	13,904	
Leather tanned.....	3	226	491,500	83,300	596,565	921,242	
Liquors, malt.....	4	8	33,500	2,890	6,010	14,300	
Lumber, sawed.....	39	351	466,100	112,080	270,310	497,310	
ERIE.							
Agricultural implements.....	9	301	688,200	206,575	124,631	491,825	
Boots and shoes.....	6	90	51,600	34,511	90,354	143,216	
Brass founding and finishing.....	1	23	55,000	16,200	39,360	60,000	
Bread and other bakery products.....	10	31	24,000	11,536	51,008	88,539	
Brick.....	15	204	50,100	51,200	19,286	108,400	
Carriages and wagons.....	45	133	72,283	44,606	36,573	122,292	
Cars, freight and passenger.....	1	112	50,250	75,000	160,770	274,975	
Cheese.....	3	9	5,150	950	15,807	18,854	
Clothing, men's.....	29	110	100,150	62,062	148,071	265,195	
Coal-oil, rectified.....	5	64	279,900	41,213	508,188	636,391	
Coffee and spices, ground.....	2	3	5,000	1,340	15,845	19,116	
Confectionery.....	4	9	3,500	1,116	8,689	12,408	
Cooperage.....	20	136	54,550	94,309	116,259	241,581	
Flouring-mill products.....	19	76	359,500	31,634	1,252,993	1,429,558	
Furniture, cabinet.....	19	52	50,550	16,710	14,771	46,385	

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
ERIE—Continued.						
Gas	1	8	140,000	4,000	13,100	36,100
Hoop-skirts and corsets.....	10	41	9,250	5,079	37,440	54,315
Hubs, and wagon material.....	3	21	35,500	10,680	18,500	45,920
Iron, pigs.....	1	40	100,000	11,000	90,500	108,244
castings, (not specified).....	11	152	307,500	77,705	281,361	386,680
stoves, &c.....	3	172	223,000	99,177	135,314	321,908
Leather, tanned.....	20	72	181,535	34,643	207,007	282,042
curried	9	14	24,650	5,809	72,941	92,273
Lime	3	9	36,500	4,688	18,000	26,850
Liquors, malt.....	14	42	201,500	17,420	60,197	128,650
vinous.....	1	14	100,000	4,250	7,800	17,400
Lumber, planed.....	14	79	132,650	30,597	130,494	188,912
sawed.....	56	253	232,080	57,457	181,405	395,765
Machinery, (not specified).....	7	155	245,500	107,640	132,480	309,230
engines and boilers.....	2	118	200,000	71,608	166,031	333,500
Malt	3	11	34,000	4,070	75,370	85,290
Marble and stone work.....	6	23	32,500	13,896	15,836	38,700
Masonry, brick and stone.....	19	64	5,200	14,770	29,995	62,670
Millinery	13	44	19,500	7,412	21,640	40,050
Oars	3	24	20,798	10,500	10,250	26,109
Oil, animal	2	4	4,500	250	11,500	12,800
Paper, printing	2	25	52,000	9,000	41,910	79,400
Plaster.....	3	6	40,200	3,500	7,575	19,500
Printing, newspaper.....	6	89	75,300	46,100	37,799	113,657
Pumps.....	9	53	64,000	24,184	62,979	146,001
Saddlery and harness.....	19	43	20,375	13,190	26,360	49,621
Sails	1	4	800	1,200	10,500	11,800
Sash, doors, and blinds.....	12	73	87,100	39,100	69,682	114,031
Ship building and repairing.....	1	10	10,000	8,000	8,725	20,000
Soap and candles	1	6	18,000	3,300	19,100	27,200
Tin, copper and sheet-iron ware ..	29	92	78,374	33,270	59,493	126,437
Tobacco, cigars.....	13	33	13,800	8,980	15,768	37,168
Upholstery.....	4	13	5,900	3,276	13,000	20,287
Wooden ware.....	3	140	265,000	47,600	59,180	222,915
Wood, turned and carved.....	8	69	86,075	32,915	35,460	95,165
Wood-work	1	55	80,000	35,000	36,000	120,000
Woolen goods	8	89	167,000	29,882	72,725	130,035
FAYETTE.						
Bread and other bakery products.	3	7	3,350	800	8,782	17,440
Brick	4	48	8,910	10,350	8,337	28,040
Carriages and wagons.....	20	46	13,425	7,440	8,474	31,368
Cars, freight and passenger.....	1	11	7,000	7,000	10,640	20,000
Cement	1	37	47,000	12,000	10,000	28,200
Charcoal.....	1	25	1,200	4,500	1,760	11,625
Clothing, men's.....	13	88	40,325	20,975	50,545	94,486
Coke.....	7	282	604,743	152,400	249,500	516,800
Cooperage.....	13	49	17,200	10,850	18,638	42,145
Flouring-mill products.....	21	41	163,800	12,555	376,296	447,762
Furniture	8	21	11,870	3,850	3,655	16,517
Glass, window	4	201	198,000	160,045	123,811	299,190
Iron, blooms.....	1	8	10,000	3,000	12,619	14,000
forged and rolled.....	1	21	25,000	7,000	14,000	27,020
pigs.....	3	145	467,000	30,000	76,655	215,350
castings.....	4	10	25,266	4,660	5,684	15,221
Leather, tanned.....	13	54	122,150	16,821	98,781	152,357
curried.....	4	8	17,450	1,397	16,669	21,770

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
<i>FAYETTE—Continued.</i>			<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>
Liquors, distilled.....	7	39	187,000	19,845	181,203	404,972
Lumber, planed	3	20	51,500	10,050	26,250	41,650
sawed	13	45	51,300	12,000	53,648	43,755
Machinery, railroad repairing	2	88	50,000	48,750	61,854	112,860
engines and boilers.....	1	36	2,000	14,360	10,680	28,525
Masonry, brick and stone.....	6	27	796	6,100	5,925	20,740
Saddlery and harness.....	12	24	6,400	4,470	11,195	24,122
Ship building and repairing.....	1	35	50,000	18,200	30,000	90,000
Stone and earthen ware.....	5	23	6,100	6,670	2,139	14,860
Tin, copper and sheet-iron ware.....	12	22	10,800	4,468	11,798	22,214
Woolen goods.....	4	38	30,500	9,500	32,236	65,598
<i>FOREST.</i>						
Flouring mill products.....	2	3	9,000	500	10,782	15,044
Lumber, sawed.....	18	233	478,200	85,580	150,086	345,650
<i>FRANKLIN.</i>						
Agricultural implements.....	11	140	193,764	48,174	89,713	208,922
Boots and shoes.....	2	21	10,000	4,100	7,825	17,100
Carpet, rag.....	5	17	14,350	3,224	11,947	19,149
Carriages and wagons.....	41	174	58,530	36,375	45,172	128,134
Clothing, men's.....	12	77	42,480	14,550	34,997	68,038
Confectionery.....	3	15	28,500	1,700	8,092	13,700
Cooperage.....	19	47	7,125	3,517	10,120	20,558
Flouring mill products	53	127	451,070	19,460	776,667	1,144,828
Furniture.....	18	69	28,200	12,092	14,090	37,660
Iron, blooms.....	1	23	187,500	7,400	52,000	70,090
pigs.....	4	274	379,500	65,500	111,616	233,400
castings.....	7	30	57,516	8,900	14,806	37,240
Leather, tanned.....	20	53	137,916	12,370	136,313	200,009
curried.....	15	26	63,648	5,002	99,802	124,628
Lime.....	7	22	4,100	2,945	10,304	23,410
Liquors, distilled	4	10	42,000	2,425	32,302	88,181
malt.....	3	11	23,400	5,200	12,436	26,546
Lumber, planed	1	17	9,000	4,000	15,000	23,250
sawed.....	10	25	17,100	4,760	24,260	45,463
Machinery and boilers.....	4	57	58,567	21,517	16,864	76,800
Marble and stone work.....	6	15	8,900	3,200	7,966	16,175
Paper, printing.....	3	56	150,000	21,013	35,779	91,473
Patent medicines	2	13	16,000	1,300	6,675	11,656
Saddlery and harness.....	23	45	20,000	6,380	18,171	42,181
Sash, doors and blinds.....	5	61	72,500	18,819	42,847	76,882
Stone and earthen ware.....	6	22	7,350	6,100	4,898	18,050
Tin, copper and sheet-iron ware.....	19	62	70,050	14,318	57,390	99,096
Woolen goods.....	6	106	110,900	41,036	150,333	241,172
<i>FULTON.</i>						
Flouring mill products.....	3	4	16,500	400	20,015	22,413
Leather, tanned.....	7	59	240,000	22,660	174,494	304,562
<i>GREENE.</i>						
Carriages and wagons.....	7	19	5,700	3,350	3,434	15,320
Cooperage.....	6	14	5,600	4,755	8,272	20,017
Flouring mill products.....	4	8	15,500	775	23,985	32,575
Furniture, cabinet.....	8	20	6,800	2,200	4,133	15,392
Leather, tanned.....	8	17	20,000	2,435	14,601	21,864
curried	6	9	5,600	1,580	16,514	20,407

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
GREENE—Continued.						
Liquors, distilled.....	5	28	239,000	10,740	66,970	121,573
Lumber, sawed.....	4	16	13,700	1,656	12,775	22,529
Marble work.....	3	11	3,800	5,150	10,230	17,955
Saddlery and harness.....	14	26	7,970	3,610	9,406	22,072
Stone and earthen-ware.....	4	53	24,000	18,700	8,332	40,095
Woolen goods.....	3	18	17,700	2,450	14,442	19,745
HUNTINGDON.						
Bread and other bakery products,	2	5	1,100	801	12,900	15,325
Brick.....	3	81	15,000	14,100	3,795	25,775
Carriages and wagons.....	15	35	16,250	4,800	7,656	23,852
Clothing, men's.....	7	22	4,450	4,486	12,550	21,542
Flouring mill products.....	14	33	162,000	9,175	214,822	303,803
Furniture.....	12	21	8,425	1,960	3,405	11,731
Iron, blooms.....	5	136	103,000	55,527	193,852	299,517
pigs.....	3	370	775,090	142,300	144,953	241,940
castings.....	8	23	30,300	6,450	7,338	20,910
Leather, tanned.....	20	114	435,777	40,588	462,303	707,215
curried.....	9	10	7,500	1,210	18,799	23,028
Liquors, distilled.....	1	4	6,000	1,043	4,048	10,000
Lumber, planed.....	2	35	56,000	17,120	22,400	52,965
sawed.....	7	42	25,500	11,475	12,755	40,065
Plaster.....	5	14	12,450	1,150	7,825	10,920
Printing, newspaper.....	4	14	13,500	4,664	3,786	13,845
Saddlery and harness.....	8	16	4,475	1,610	5,516	10,199
Tin, copper and sheet-iron ware.....	13	23	9,200	570	6,385	15,130
Woolen goods.....	4	21	8,100	3,657	11,262	18,367
INDIANA.						
Agricultural implements.....	10	14	9,350	2,040	4,426	13,045
Brick.....	9	71	36,650	20,655	46,557	54,651
Carriages and wagons.....	14	24	7,300	2,082	4,700	16,350
Clothing, men's.....	3	10	6,600	3,414	13,600	20,100
Flouring mill products.....	8	24	54,000	4,666	73,209	90,755
Furniture.....	15	26	19,310	2,680	3,470	14,357
Iron, castings.....	10	32	30,750	8,907	10,263	31,828
Leather, tanned.....	28	42	54,930	5,730	50,896	65,934
curried.....	19	23	17,300	4,360	45,416	55,437
Lumber, planed.....	4	16	18,700	3,680	9,759	23,550
sawed.....	26	120	95,000	24,110	71,500	169,216
Machinery, railroad.....	1	28	10,000	19,000	3,920	22,920
Marble and stone work.....	4	14	4,000	2,970	4,877	12,375
Paper.....	2	25	62,000	9,800	13,749	46,000
Saddlery and harness.....	13	36	23,850	9,980	15,817	34,156
Salt.....	2	18	8,000	6,500	10,130	12,750
Sash, doors and blinds.....	4	23	28,800	11,200	8,310	27,337
Tin, copper and sheet-iron ware.....	11	27	17,350	6,000	12,353	31,690
Woolen goods.....	8	44	52,800	7,040	35,304	57,685
JEFFERSON.						
Agricultural implements.....	2	6	12,000	3,425	14,000	22,675
Carriages and wagons.....	8	14	3,800	875	2,690	11,140
Furniture.....	8	34	31,300	10,350	5,828	28,000
Iron, castings.....	4	14	26,000	5,225	7,520	25,580
Leather, tanned.....	11	16	23,600	2,225	14,788	21,478
curried.....	7	7	3,800	435	11,101	13,888

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments,	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
JEFFERSON—Continued.						
Liquors, distilled.....	1	2	3,000	300	3,450	12,000
Lumber, planed.....	3	16	7,500	8,800	9,532	24,000
sawed.....	44	217	205,632	67,647	184,551	472,093
Machinery.....	1	17	3,500	8,000	9,980	24,500
Saddlery and harness.....	7	20	10,850	4,953	17,750	25,545
Woolen goods.....	4	13	11,900	2,060	4,911	10,166
JUNIATA.						
Agricultural implements.....	4	8	4,900	1,000	3,980	11,875
Carriages and wagons.....	13	28	10,020	2,520	7,011	21,359
Flouring mill products.....	9	18	60,750	2,600	76,745	89,556
Leather, tanned.....	18	53	122,400	11,927	160,627	243,706
Lime.....	8	13	2,075	1,135	4,306	11,970
Lumber, sawed.....	2	12	15,800	5,110	3,500	16,980
LANCASTER.						
Agricultural implements.....	24	169	180,000	37,954	82,949	214,968
Bookbinding.....	2	25	7,000	6,500	8,055	18,000
Boots and shoes.....	6	47	24,500	14,969	17,045	48,684
Boxes, cigar.....	3	31	6,500	6,400	16,580	28,820
Bread and other bakery products,	27	82	32,235	17,586	65,452	114,224
Brick.....	31	310	99,230	55,271	32,325	133,233
Brushes.....	2	11	4,500	4,500	5,025	14,950
Carpets, rag.....	14	28	8,015	1,688	12,270	20,865
Carriages and wagons.....	90	388	202,337	98,916	140,986	347,012
Clothing, men's.....	55	318	114,000	61,266	140,421	262,327
Coal oil, rectified.....	1	10	25,000	2,500	78,087	118,300
Coffee and spices, ground.....	1	3	5,000	1,200	9,000	10,920
Combs.....	1	46	25,000	16,916	18,676	39,247
Confectionery.....	12	54	29,250	10,925	30,446	59,222
Cooperage.....	37	74	17,600	9,145	14,877	40,765
Cork cutting.....	1	43	35,000	7,100	43,700	62,000
Cotton goods.....	9	1,337	1,365,200	248,635	1,026,890	1,757,321
Edge tools.....	1	15	15,000	3,000	4,300	11,800
Files.....	1	31	50,000	10,000	8,500	23,000
Fire-arms, small arms.....	1	31	100,000	18,000	15,000	60,000
Flouring mill products.....	143	342	1,439,243	59,501	2,606,168	3,041,928
Furniture, (not specified).....	42	151	134,550	36,845	44,428	135,794
chairs.....	7	20	13,600	2,950	3,455	12,750
Gas.....	2	16	185,000	10,000	19,512	48,330
Hats and caps.....	7	78	72,800	31,111	60,880	153,100
Hubs and wagon material.....	6	20	18,825	5,750	13,880	25,430
Iron, blooms.....	3	70	25,800	18,000	73,420	105,000
forged and rolled.....	3	338	350,000	110,880	255,622	406,410
pigs.....	12	483	2,217,500	243,560	1,534,830	2,024,551
castings.....	14	104	109,750	37,481	56,665	120,664
Leather, tanned.....	26	105	295,220	30,343	287,148	362,374
curried.....	18	53	132,800	14,429	222,158	252,595
Lime.....	45	211	102,754	44,001	119,694	247,470
Liquors, distilled.....	4	13	25,500	3,000	22,970	46,500
malt.....	12	57	179,100	21,320	89,623	186,250
Lumber, planed.....	5	69	47,075	40,100	63,700	127,700
sawed.....	11	53	100,100	14,225	149,350	189,080
Machinery, (not specified).....	8	74	64,568	23,413	33,305	70,540
engines and boilers.....	5	73	72,250	32,018	42,012	111,442
Malt.....	2	17	71,500	4,800	58,300	70,000
Marble works, tombstones.....	7	35	18,000	9,325	19,138	43,200

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials	Products.....
			Dolls.	Dolls.	Dolls.	Do'ls.
LANCASTER—Continued.						
Masonry, brick and stone.....	11	60	1,345	10,550	4,975	29,600
Millinery.....	11	32	14,225	745	8,245	14,914
Nickel.....	1	33	55,000	9,900	48,110	66,190
Paper, printing.....	2	52	145,000	19,000	132,688	182,339
Patent medicines.....	6	22	25,000	7,410	29,529	99,109
Printing, newspaper.....	2	17	13,900	4,700	6,400	16,500
Saddlery and harness.....	47	124	57,335	21,488	52,304	112,498
Sash, doors and blinds.....	8	86	57,100	37,260	78,530	42,670
Soap and candles.....	1	3	11,000	700	8,300	12,000
Stone and earthen ware.....	6	23	9,100	7,075	5,080	21,100
Tin, copper and sheet-iron ware ..	44	140	139,652	34,395	78,936	159,977
Tobacco (not cigars) and snuff.....	2	6	10,000	930	4,028	10,300
cigars.....	95	571	128,400	106,256	102,945	435,080
Woolen goods.....	13	108	148,800	34,882	121,547	193,502
LAWRENCE.						
Bags, paper.....	1	3	4,000	900	49,003	53,300
Boots and shoes.....	1	5	10,000	3,750	6,480	11,000
Bread and other bakery products.....	3	8	6,100	2,245	6,590	10,450
Brick.....	3	27	22,800	9,200	12,960	25,965
Brooms.....	3	11	2,100	2,260	11,908	16,525
Carriages and wagons.....	8	29	23,950	9,917	29,643	43,909
Clothing, men's.....	6	51	30,500	13,165	32,194	56,481
Cooperage.....	2	9	40,800	4,750	12,479	17,555
Flouring-mill products.....	12	40	142,000	14,950	350,550	410,477
Glass, window.....	1	74	50,000	60,000	35,283	125,000
Iron, forged and rolled.....	3	229	160,000	97,400	262,550	369,540
bolts, nuts, washers, &c.....	1	11	33,000	6,000	20,350	27,900
nails and spikes, cut, &c.....	2	139	101,500	84,800	197,400	231,222
pigs.....	6	324	378,500	143,960	886,000	1,130,326
castings, not (specified).....	3	22	29,000	11,800	19,520	38,000
stoves, heaters, &c.,.....	1	20	35,000	8,718	8,510	20,000
Liquors, distilled.....	1	3	10,000	2,400	8,650	33,750
Lumber, planed.....	3	34	67,000	20,000	39,850	70,000
sawed.....	16	61	39,000	13,242	39,308	95,439
Machinery.....	1	22	20,000	12,400	4,600	18,000
Paper, wrapping.....	1	9	24,000	2,700	44,600	48,500
Printing, newspaper.....	3	15	26,300	6,595	5,384	17,050
Saddlery and harness.....	5	18	17,300	4,770	9,652	20,260
Woolen goods.....	5	46	63,500	6,580	21,440	41,270
LEBANON.						
Blacking.....	1	3	5,000	550	5,300	10,000
Boots and shoes.....	4	71	32,900	21,410	25,101	66,950
Bread and other bakery products.....	11	33	3,950	6,036	16,362	36,476
Brick.....	9	74	13,700	8,376	4,998	18,878
Carriages and wagons.....	19	103	70,710	35,628	18,446	84,798
Cars, freight and passenger.....	3	183	84,000	88,700	366,806	462,925
Clothing, men's.....	39	124	27,285	19,140	73,203	123,512
Flouring-mill products.....	14	36	199,250	7,107	365,356	420,927
Furniture.....	18	63	28,800	12,295	15,161	40,109
Gas.....	1	2	54,000	900	3,216	13,117
Iron, blooms.....	2	57	235,000	15,500	83,200	158,500
forged and rolled.....	2	70	88,500	29,000	87,250	154,500
pigs.....	6	365	1,080,000	188,870	610,051	1,137,775
castings.....	5	58	84,500	18,609	57,209	115,120
Leather, tanned.....	6	19	51,860	5,355	46,237	60,218
carried.....	4	9	23,180	2,455	31,122	38,481

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
LEBANON—Continued.						
Lime.....	15	55	8,000	9,312	15,246	32,451
Liquors, malt.....	4	10	24,000	2,250	8,795	15,200
Lumber, planed.....	1	20	12,050	6,100	30,000	47,920
sawed.....	4	11	8,700	892	12,461	16,704
Machinery.....	1	50	50,000	15,000	25,000	41,214
Paper.....	1	35	150,000	16,000	70,000	134,400
Printing, newspaper.....	3	17	28,000	2,750	5,785	22,900
Saddlery and harness.....	11	26	14,045	3,181	8,843	17,827
Tin, copper and sheet-iron ware...	15	36	27,200	6,200	26,169	44,785
Tobacco, cigars.....	19	62	8,025	7,198	7,617	30,918
LEHIGH.						
Agricultural implements.....	13	47	52,400	10,080	31,488	62,518
Boots and shoes.....	2	125	220,000	51,400	60,000	140,000
Bread and other bakery products.	8	24	9,300	5,400	28,075	45,210
Brick.....	23	303	218,150	72,352	119,601	276,518
Carpets, rag.....	5	19	4,850	3,972	22,333	29,242
Carriages and wagons.....	35	245	99,750	60,165	88,267	239,415
Cars, freight and passenger.....	2	33	35,000	61,400	137,550	231,790
Clothing, men's.....	39	239	117,690	48,812	124,137	238,486
Coal-oil, refined.....	1	4	10,000	3,000	38,750	50,500
Confectionery.....	2	12	30,000	4,800	13,220	24,000
Flouring-mill products.....	21	79	274,632	29,156	695,192	784,106
Furniture, (not specified.....	11	72	73,550	25,698	66,770	117,421
chairs.....	2	11	22,300	4,800	3,717	11,868
Gas.....	1	4	60,000	2,880	8,188	13,900
Hardware.....	2	11	16,000	3,020	8,850	12,750
Hosiery.....	1	26	12,000	5,500	4,940	17,000
Hubs and wagon material.....	4	18	16,800	4,615	8,170	24,024
Iron, forged and rolled.....	7	952	1,264,550	559,858	1,636,246	2,729,795
nails and spikes, cut, &c.....	1	7	22,200	4,000	405,450	434,075
pipe, wrought.....	1	11	24,000	4,500	49,872	60,000
pigs.....	6	1,181	5,120,000	744,779	4,417,992	6,194,970
castings.....	9	132	279,000	95,345	294,733	460,950
Leather, tanned.....	24	76	263,000	25,571	353,114	474,324
curried.....	25	42	66,050	10,957	214,267	248,926
Lime.....	10	30	17,200	6,125	16,890	71,600
Liquors, malt.....	6	23	94,500	8,844	30,945	61,130
Lumber, sawed.....	7	18	45,500	4,420	39,375	53,540
Machinery, (not specified).....	5	49	101,300	23,591	82,130	116,600
engines and boilers.....	5	64	52,800	21,681	63,700	116,600
Marble and stone work (n. s.).....	3	27	5,600	9,775	11,340	27,960
tombstones.....	7	22	22,450	8,260	17,500	34,790
Millinery.....	6	14	5,425	1,100	3,665	10,000
Patent medicines.....	2	5	14,200	2,200	30,000	41,600
Roofing materials.....	13	341	676,550	154,530	12,870	238,680
Saddlery and harness.....	24	38	37,450	7,215	20,141	43,779
Sash, doors and blinds.....	5	70	50,225	39,080	61,890	130,150
School slates.....	2	41	45,420	19,000	13,600	42,234
Stone and earthen ware.....	4	14	10,500	4,500	1,900	10,100
Tin, copper and sheet-iron ware ..	19	51	57,950	14,583	30,291	67,121
Tobacco, chewing and smoking....	34	192	78,750	62,828	95,943	216,100
cigars.....	1	8	5,000	3,000	2,500	14,000
Wood, turned and carved.....	8	30	30,100	9,750	18,355	36,765
Woolen goods.....	2	37	36,000	11,780	27,200	48,480

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
LUZERNE.						
Boots and shoes.....	6	33	18,300	13,388	23,785	52,495
Brass founding and finishing.....	3	11	21,000	2,000	10,310	24,400
Bread and other bakery products.....	11	51	60,500	19,086	148,124	242,575
Brick.....	5	105	30,100	39,000	10,200	61,850
Carriages and wagons.....	39	128	71,260	43,069	49,391	134,083
Cars, freight and passenger.....	5	443	160,500	263,360	470,700	799,060
Clothing, men's.....	45	235	132,450	62,482	160,760	303,133
women's.....	13	45	4,410	6,810	3,800	17,309
Coal oil, rectified.....	1	23	10,000	8,348	13,200	26,000
Confectionery.....	5	10	5,600	3,036	7,597	16,520
Cooperage.....	1	10	6,000	5,600	10,100	35,000
Edge-tools and axes.....	1	27	30,000	18,000	12,700	35,000
Flouring-mill products.....	30	112	530,700	45,425	1,088,862	1,359,438
Furniture.....	24	102	57,460	40,398	39,538	120,515
Gas.....	4	31	405,000	23,868	22,215	92,684
Gunpowder.....	3	129	615,000	55,908	401,029	642,907
Hubs, and wagon material.....	1	7	5,000	4,000	3,000	10,000
Iron, forged and rolled.....	1	1,000	1,000,000	570,000	1,620,000	2,358,500
pigs.....	1	130	100,000	91,000	1,079,000	1,302,000
castings, (not specified,).....	17	221	297,300	104,970	242,735	445,648
stoves, heaters, &c.....	4	100	146,000	94,436	45,940	183,795
Leather, tanned.....	21	249	623,250	107,316	707,434	1,105,424
curried.....	10	19	19,900	4,681	82,160	111,013
Liquors, distilled.....	3	13	25,382	3,268	17,710	58,852
malt.....	7	67	400,000	40,900	146,612	415,130
Lumber, planed.....	7	69	135,290	38,276	163,506	254,525
sawed.....	74	857	1,227,350	346,226	488,767	1,466,987
Machinery, (not specified).....	9	567	645,000	437,502	539,261	1,307,320
railroad repairing.....	5	968	355,000	511,026	438,635	956,886
engines and boilers.....	4	100	167,000	43,325	52,240	111,300
Marble-work, tombstones.....	7	28	24,400	15,900	21,300	50,950
Masonry, brick and stone.....	4	29	6,025	10,240	12,214	31,000
Millinery.....	8	19	6,200	2,607	4,700	15,060
Mineral and soda waters.....	1	2	5,000	1,000	4,000	12,000
Paper, printing.....	1	8	25,000	1,709	9,600	30,000
wrapping.....	1	8	25,000	2,500	9,384	18,731
Printing, newspaper.....	7	93	690,000	56,478	31,258	112,000
Saddlery and harness.....	24	63	32,650	17,203	33,958	71,808
Sash, doors, and blinds.....	5	83	133,400	46,600	42,400	179,100
Sewing-machine fixtures.....	1	7	3,000	2,930	5,000	13,000
Ship building and repairing.....	5	28	12,200	11,450	11,600	32,200
Small beer.....	5	17	11,600	4,300	9,756	25,200
Stone and earthen ware.....	3	12	17,500	3,800	3,760	26,500
Tin, copper and sheet-iron ware.....	30	153	92,600	55,986	146,396	293,869
Tobacco and cigars.....	1	5	7,000	1,200	2,500	13,500
cigars.....	20	115	20,100	48,940	37,382	114,285
Upholstery.....	2	7	3,600	3,392	8,040	16,400
Wheelbarrows.....	1	5	3,000	3,000	6,500	11,750
Woolen goods.....	4	28	26,230	5,600	21,608	31,976
COLUMBIA.						
Agricultural implements.....	3	22	10,500	7,500	8,590	38,525
Belting-hose, (leather).....	1	5	5,000	1,130	6,325	11,325
Boots and shoes.....	2	12	1,500	5,500	4,030	11,300
Bread and other bakery products.....	6	24	14,600	10,785	31,286	63,600
Brick.....	4	91	40,000	19,500	97,690	92,250
Carpets, rag.....	4	9	2,950	1,300	4,068	11,140

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SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages	Materials.....	Products.....
LYCOMING—Continued.			Dolls.	Dolls.	Dolls.	Dolls.
Carriages and wagons.....	23	89	48,150	27,448	24,399	83,439
Clothing, men's.....	11	57	39,345	11,750	31,705	57,300
Coal oil, rectified.....	1	4	30,000	2,500	32,500	36,000
Flouring-mill products.....	12	42	143,600	9,645	309,908	359,864
Furniture.....	10	104	95,900	33,000	30,535	113,360
Gas.....	2	10	116,000	7,800	11,894	37,150
Hemlock-bark, extract.....	1	25	50,000	15,000	23,230	150,000
Iron, forged and rolled.....	1	21	60,000	12,000	42,000	81,000
nails and spikes, cut, &c....	1	11	25,000	9,000	46,500	64,000
castings.....	4	33	38,000	19,200	15,795	49,450
Leather, tanned.....	20	101	103,450	28,187	179,634	230,906
curried.....	13	18	22,850	1,665	43,528	52,577
Lime.....	5	16	7,000	6,200	6,656	18,610
Liquors, malt.....	1	7	3,000	1,800	9,400	20,000
Lumber, planed.....	8	178	283,400	106,160	485,300	709,410
sawed.....	121	1,921	5,637,870	731,021	3,013,215	5,173,796
Machinery, (not specified,).....	7	79	134,500	48,500	60,443	142,205
engines and boilers....	5	68	110,000	40,000	59,685	174,900
Marble and stone work.....	4	8	3,800	1,720	3,750	11,500
Masonry, brick and stone.....	7	81	7,700	22,150	53,600	94,600
Paper.....	1	18	30,000	5,500	4,600	12,000
Saddlery and harness.....	17	40	23,600	8,190	19,892	40,200
Sash, doors and blinds.....	5	126	122,700	62,711	96,934	186,183
Saws.....	1	12	30,000	5,000	10,000	23,000
Soap and candles.....	1	5	4,000	500	12,020	18,000
Tin, copper and sheet-iron ware ..	9	25	14,250	6,100	13,990	27,900
Woolen goods.....	6	75	86,600	16,400	56,480	87,061
M'KEAN.						
Lumber, sawed.....	25	196	223,900	76,400	178,872	329,054
MERCER.						
Boots and shoes.....	2	10	8,210	3,020	5,378	11,971
Bread and other bakery products,	3	16	16,400	3,068	12,370	18,768
Carriages and wagons.....	38	130	74,100	39,945	39,398	121,336
Clothing, men's.....	7	43	23,570	16,378	47,103	75,148
Cooperage.....	6	16	3,150	3,500	9,330	19,761
Flax, dressed.....	1	20	12,000	7,000	6,230	14,500
Flouring-mill products.....	20	46	210,200	14,371	277,636	330,884
Furniture.....	5	24	18,500	9,378	12,726	28,208
Hubs and wagon material.....	2	12	16,000	3,800	1,780	10,441
Iron, forged and rolled.....	3	490	135,000	275,740	750,000	1,125,000
Iron, nails and spikes, cut, &c....	2	140	90,000	124,260	475,000	615,000
pigs.....	8	407	1,527,000	256,852	1,787,664	2,439,311
castings, (not specified)....	11	51	59,600	43,461	61,674	95,233
stoves, heaters, &c.,.....	4	12	16,350	6,500	15,034	24,600
Leather, tanned.....	13	23	28,250	7,630	54,701	75,009
curried.....	11	14	18,650	3,940	46,327	56,797
Liquors, malt.....	3	6	6,500	900	6,061	18,700
Lumber, planed.....	9	42	67,500	12,848	61,128	122,074
sawed.....	52	206	157,350	72,242	118,384	325,090
Machinery, (not specified).....	6	40	40,250	12,409	21,590	51,620
engines and boilers....	3	29	14,200	14,021	21,207	40,845
Printing, newspaper.....	3	14	9,800	5,150	2,910	14,750
Saddlery and harness.....	19	42	20,827	11,217	23,748	48,728
Sash, doors and blinds.....	1	28	40,000	17,500	30,000	54,000
Soap and candles.....	2	6	9,000	2,200	19,298	27,000

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
MERCER—Continued.						
Tin, copper and sheet-iron ware...	9	29	22,800	11,854	22,225	43,900
Woolen goods.....	5	48	59,000	12,400	44,128	65,188
MIFFLIN.						
Clothing, men's.....	10	20	4,185	2,740	7,652	18,151
Edge tools and axes.....	1	130	150,000	80,000	100,000	200,000
Flouring-mill products.....	6	22	124,200	8,620	286,347	351,862
Iron, pigs.....	2	74	195,000	32,000	155,644	220,000
castings.....	3	16	16,284	6,425	11,123	29,737
Leather, tanned.....	11	41	178,000	16,040	185,072	260,202
Lumber, sawed.....	4	43	12,800	16,364	3,660	31,120
Machinery, engines and boilers.....	1	19	18,000	3,750	9,002	17,806
Saddlery and harness.....	9	10	4,200	652	5,255	12,554
Tin, copper and sheet-iron ware.....	7	14	4,415	2,346	7,321	12,717
Woolen goods.....	4	56	122,900	12,488	51,907	84,546
MONROE.						
Agricultural implements.....	1	4	8,000	2,000	4,800	15,000
Clothing, men's.....	5	9	1,850	1,250	5,850	10,125
Flouring-mill products.....	12	23	71,000	3,540	147,134	174,239
Furniture.....	8	22	21,150	9,400	4,650	24,700
Hardware.....	1	11	200,000	9,186	5,175	30,000
Iron, castings.....	5	16	20,300	6,050	7,370	21,000
Leather, tanned.....	12	213	704,650	96,100	862,193	1,146,014
Lumber, planed.....	1	8	8,000	4,500	3,200	11,000
sawed.....	13	109	204,000	33,000	114,976	286,956
Saddlery and harness.....	5	8	4,550	3,000	3,850	10,500
Sash, doors and blinds.....	1	8	10,000	6,000	5,100	15,000
Shoe-pegs.....	1	15	8,000	6,500	2,500	12,000
Woolen goods.....	2	7	8,000	900	9,030	14,200
MONTGOMERY.						
Agricultural implements.....	11	96	152,360	41,058	83,351	156,231
Bleaching and dyeing.....	1	60	100,000	15,000	180,775	203,025
Boots and shoes.....	5	40	19,000	17,430	25,287	57,600
Boxes, cigar.....	6	11	2,260	1,872	14,099	19,636
Bread and other bakery products,	9	25	31,100	5,538	29,780	58,813
Brick.....	20	188	57,850	44,090	16,208	87,295
Carriages and wagons.....	54	180	90,075	42,442	53,500	158,350
Cars, freight and passenger.....	1	33	30,000	25,000	62,350	163,050
Clothing, men's.....	32	182	70,750	26,434	116,016	176,470
Coal oil, rectified.....	1	7	80,000	6,992	13,700	28,000
Coffee and spices, ground.....	1	5	1,100	1,000	21,500	29,100
Coffins.....	6	14	12,850	3,450	3,494	16,370
Confectionery.....	2	11	24,000	4,100	10,931	20,500
Cooperage.....	6	23	22,900	7,101	13,825	26,137
Cotton goods, (not specified).....	7	773	485,500	212,043	498,524	800,555
thread, twine and yarn.....	1	45	56,000	13,000	110,500	128,360
Flouring-mill products.....	44	87	399,425	31,433	725,580	1,200,455
Food preparations, animal.....	1	6	5,000	850	27,000	30,000
Furniture.....	12	28	26,400	6,462	5,665	21,496
Gas.....	2	4	81,700	3,251	11,072	27,908
Glassware.....	1	5	100,000	30,000	18,100	80,000
Hardware.....	1	1	100,000	26,940	25,300	64,000
Iron, forged and rolled.....	10	1,131	1,580,000	707,654	1,954,800	3,188,043
nails and spikes, cut, &c.....	3	114	150,000	52,474	318,608	388,925
pigs.....	6	262	1,287,000	138,713	1,046,856	1,379,828

FROM CENSUS OF 1870,

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages	Materials	Products
			Dolls.	Dolls.	Dolls.	Dolls.
MONTGOMERY—Continued.						
Iron, castings, (not specified).....	4	204	219,500	104,166	387,255	548,880
stoves, heaters, &c.,	2	78	173,000	47,000	56,230	148,875
Leather, tanned.....	15	31	48,467	7,409	80,955	106,367
curried.....	15	22	19,883	5,069	81,637	98,948
Lime.....	19	216	112,300	76,923	190,806	367,281
Lumber, planed.....	4	35	23,000	15,800	63,400	106,000
sawed.....	9	20	39,500	5,075	33,720	52,870
Machinery, (not specified).....	3	13	26,300	6,500	7,000	21,600
engines and boilers...	3	100	182,680	59,340	67,026	154,066
Marble and stone work, (n. s.)....	5	57	47,100	27,757	62,830	112,625
tombstones,	4	17	12,800	5,650	10,420	23,085
Millinery.....	8	16	7,100	2,160	7,250	17,500
Oil, vegetable, linseed.....	2	3	2,300	400	8,250	11,907
Paper, printing.....	2	80	87,000	4,485	140,900	230,000
writing.....	1	32	25,000	5,500	106,650	142,800
Printing of cotton cloths.....	1	195	200,000	80,000	285,000	400,000
newspaper.....	2	11	11,000	2,600	3,875	13,650
Saddlery and harness.....	37	63	26,150	7,080	29,731	58,315
Sash, doors and blinds.....	6	97	102,600	50,266	70,710	135,644
Shovels and spades.....	1	55	160,000	40,000	130,000	180,000
Soap and candles.....	4	8	18,800	2,050	27,175	41,540
Stone and earthen ware.....	8	82	135,900	29,024	26,772	101,280
Tin, copper and sheet-iron ware..	20	56	44,470	10,370	36,009	67,105
Tobacco, cigars.....	73	961	132,432	119,136	172,989	536,739
Wood, turned and carved.....	46	82	32,621	10,600	17,920	51,463
Woolen goods.....	22	1,304	1,465,550	475,169	2,138,819	2,976,851
Worsted goods.....	1	47	50,000	9,000	28,500	50,000
MONTOUR.						
Boots and shoes.....	2	11	17,000	4,100	3,498	15,095
Bread and other bakery products.	3	7	1,000	1,585	9,022	13,216
Carriages and wagons.....	6	11	5,950	3,900	8,362	19,756
Clothing, men's.....	7	39	22,425	8,700	29,334	45,778
Coal oil, rectified.....	1	6	2,500	3,000	9,043	17,400
Flouring-mill products.....	5	16	87,700	6,772	182,442	230,275
Furniture.....	5	12	10,700	3,434	2,986	12,375
Gas.....	1	2	40,000	2,050	5,500	11,613
Iron, forged and rolled.....	2	1,289	1,170,000	643,175	1,771,584	2,520,935
pigs.....	3	441	861,702	155,300	702,640	1,180,778
castings.....	5	110	183,000	51,708	59,959	120,364
Leather, tanned.....	4	6	41,000	1,475	15,859	20,609
curried.....	4	4	8,200	100	9,667	11,137
Liquors, malt.....	2	11	19,600	5,850	20,945	41,192
Lumber, sawed.....	4	10	5,000	1,800	13,650	21,900
Machinery, (not specified).....	2	50	15,000	14,000	25,000	40,000
engines and boilers...	1	10	50,000	5,000	11,936	24,300
Saddlery and harness.....	6	12	3,775	2,824	6,292	15,582
Sash, doors and blinds.....	2	51	58,000	22,200	39,730	74,687
Tin, copper and sheet-iron ware..	3	12	17,800	4,850	10,560	18,055
NORTHAMPTON.						
Agricultural implements.....	9	50	45,047	18,536	27,301	66,701
Boats.....	4	29	14,500	11,300	19,815	52,000
Boots and shoes.....	2	16	4,400	7,500	4,760	16,306
Brass founding and finishing.....	1	15	27,000	7,800	18,040	30,000
Bread and other bakery products.	13	30	9,850	7,935	45,732	75,945

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.		Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
NORTHAMPTON—Continued.				Dolls.	Dolls.	Dolls.	Dolls.
Brick.....	17	171	40,206	33,569	16,923	77,580	
Brushes.....	1	11	10,000	4,000	12,175	20,000	
Carpets, rags.....	4	6	625	860	5,031	10,233	
Carriages and wagons.....	19	126	79,747	52,251	51,359	145,436	
Cars, freight and passenger.....	2	176	126,000	95,100	199,700	349,493	
Clothing, men's.....	31	258	120,950	60,460	171,123	277,593	
women's.....	15	41	4,515	2,862	33,577	46,195	
Coal-oil, rectified.....	1	5	12,000	1,800	36,500	40,000	
Coffee and spices, ground.....	2	7	8,500	2,350	31,000	38,000	
Confectionery.....	6	17	9,800	5,220	19,575	33,400	
Cooperage.....	1	15	25,000	5,703	7,570	16,622	
Cordage and twine.....	1	32	61,000	7,000	420,000	525,000	
Cotton goods, (not specified).....	1	120	120,000	18,600	123,769	170,000	
thread, twine and yarn.....	1	36	40,000	6,500	32,478	46,800	
Flouring-mill products.....	33	94	418,500	22,649	823,271	755,076	
Furniture.....	9	89	60,300	35,948	30,490	86,790	
Gas.....	3	13	187,000	6,640	25,347	62,365	
Hardware.....	1	14	7,000	5,000	10,200	17,000	
Hubs and wagon material.....	2	14	16,000	4,300	9,000	18,000	
Iron, forged and rolled.....	3	726	632,634	444,464	712,783	1,367,994	
bolts, nuts, washers, &c.....	1	21	12,000	3,500	10,400	26,000	
pigs.....	4	1,138	2,007,816	640,731	2,084,134	2,789,125	
castings.....	13	100	107,893	43,448	51,682	122,018	
Leather, tanned.....	16	76	175,650	26,040	256,940	340,070	
curried.....	9	13	25,350	2,270	73,599	84,342	
Lime.....	19	104	34,275	34,300	56,954	103,837	
Liquors, malt.....	7	46	174,750	20,000	101,701	259,512	
Lumber, planed.....	2	19	10,000	9,220	380,150	399,000	
sawed.....	18	58	138,800	16,200	118,580	172,795	
Machinery, railroad repairing.....	1	56	141,000	40,000	40,000	80,000	
engines and boilers.....	2	16	8,000	10,496	1,120	21,825	
Malt.....	1	11	18,000	4,000	33,000	40,000	
Marble-work, tombstones.....	7	22	14,000	6,818	13,830	29,350	
Masonry, brick and stone.....	2	42	3,800	23,080	12,400	39,700	
Millinery.....	11	27	6,450	2,484	15,385	23,053	
Mineral and soda waters.....	4	21	15,750	10,622	11,565	35,500	
Paints.....	4	119	344,000	63,164	228,394	344,419	
Paper.....	1	11	50,000	5,280	30,000	85,000	
Printing, newspaper.....	9	66	41,300	25,860	26,815	81,550	
Roofing materials.....	14	282	510,000	107,980	42,130	225,128	
Saddlery and harness.....	16	59	41,550	20,992	32,491	74,335	
Sash, doors and blinds.....	4	18	11,200	9,075	19,592	43,987	
School slates.....	11	140	68,200	49,692	40,763	113,369	
Soap and candles.....	4	19	29,000	4,500	22,220	32,100	
Tin, copper and sheet-iron ware.....	26	88	59,725	31,880	50,237	115,820	
Tobacco, cigars.....	26	115	29,250	30,905	52,873	119,235	
Wire.....	1	103	200,000	64,000	360,000	430,000	
Woolen goods.....	4	36	53,600	10,310	27,992	43,430	
Zinc, smelted and rolled.....	2	170	275,000	93,236	153,170	321,087	
NORTHUMBERLAND.							
Agricultural implements.....	5	14	18,200	2,560	3,175	10,520	
Bread and other bakery products.....	6	18	7,850	4,350	12,082	25,820	
Brick.....	12	103	13,950	14,105	4,530	30,094	
Carriages and wagons.....	12	48	24,450	16,120	14,254	35,215	
Cars, freight and passenger.....	1	172	57,000	103,200	514,848	648,000	
Clothing, men's.....	17	88	29,750	19,852	50,700	100,250	
Flouring-mill products.....	20	54	172,500	10,900	336,833	401,466	

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.		Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
				Dolls.	Dolls.	Dolls.	Dolls.
NORTHUMBERLAND—Continued.							
Furniture.....	14	34	20,000	8,925	7,825	25,743	
Gunpowder.....	1	6	3,000	1,500	5,750	14,000	
Iron, forged and rolled.....	1	43	95,000	26,113	71,662	102,455	
nails and spikes, cut, &c.....	1	32	29,000	14,864	84,954	131,358	
castings.....	11	40	34,500	16,744	43,555	83,876	
Leather, tanned.....	26	59	128,000	12,330	123,031	181,966	
curried.....	19	23	13,900	1,135	29,906	39,503	
Lime.....	27	66	54,200	14,075	32,400	57,011	
Lumber, planed.....	7	75	118,500	34,300	152,349	280,704	
sawed.....	19	245	648,500	97,250	473,486	695,450	
Machinery, (not specified,).....	6	71	28,200	42,760	57,956	125,701	
railroad-repairing.....	2	220	500,000	160,800	302,100	462,900	
Printing, newspaper.....	5	21	13,300	6,600	3,482	18,700	
Saddlery and harness.....	13	37	22,300	6,544	14,407	32,550	
Sash, doors and blinds.....	1	8	14,000	4,500	3,804	11,000	
Tin, copper and sheet-iron ware.....	17	41	48,200	8,726	23,981	44,998	
Tobacco, cigars.....	1	5	9,000	3,000	4,150	14,400	
PERRY.							
Boats.....	4	32	3,000	13,300	5,220	21,700	
Brick.....	2	13	600	1,200	925	10,000	
Carriages and wagons.....	7	19	3,600	3,025	6,004	15,630	
Clothing, men's.....	7	16	3,275	1,470	6,260	11,480	
Flouring-mill products.....	16	33	79,800	5,013	201,985	242,171	
Iron, pigs.....	1	30	125,000	18,000	92,625	125,000	
forged and rolled.....	1	180	275,000	105,000	324,370	436,360	
nails and spikes, cut, &c.....	1	105	100,000	39,500	234,020	275,000	
blooms.....	2	87	200,000	27,000	135,400	197,500	
castings.....	6	9	16,200	3,660	10,168	18,166	
Leather, tanned.....	22	67	249,000	19,221	253,272	332,041	
curried.....	15	28	77,500	8,971	200,962	248,523	
Lime.....	4	12	2,600	2,405	5,657	10,855	
Liquors, distilled.....	1	3	3,000	600	3,650	12,000	
Lumber, sawed.....	8	43	38,564	12,250	16,720	59,277	
Printing and publishing.....	5	12	6,300	2,925	3,390	10,300	
Saddlery and harness.....	8	12	3,135	700	5,410	10,096	
Sash, doors and blinds.....	1	12	15,000	6,000	25,285	33,200	
Tin, copper and sheet-iron ware.....	12	17	9,150	1,590	6,203	13,390	
Wool-carding and cloth-dressing.....	3	4	13,000	300	12,400	14,750	
Woolen goods.....	3	14	22,500	2,000	7,553	17,460	
PHILADELPHIA.							
Agricultural implements.....	2	64	42,000	25,500	59,500	145,000	
Albums, photograph.....	2	95	69,000	32,000	58,224	116,000	
Ammunition.....	1	8	3,000	600	2,500	4,500	
Artificial flowers.....	7	260	77,000	45,300	27,000	123,400	
limbs.....	4	16	14,500	8,900	1,992	20,400	
Artists' materials.....	2	10	5,500	2,312	2,700	8,600	
Awnings and tents.....	10	47	37,050	17,400	31,320	82,093	
Babbitt metal and solder.....	2	14	67,850	9,410	92,248	136,300	
Bagging.....	1	72	40,000	22,000	47,200	105,000	
Bags, paper.....	5	69	85,000	17,492	188,508	223,700	
Baking powders.....	1	4	5,000	1,200	4,800	9,600	
Banners, flags and regalias.....	7	132	121,300	29,350	66,170	169,600	
Bark, ground.....	2	38	135,000	23,112	47,360	144,350	
Bellows.....	1	4	5,000	1,560	10,380	12,000	

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
PHILADELPHIA—Continued.						
Bells.....	1	6	20,000	2,500	13,475	65,000
Belting and hose, (leather).....	12	80	276,300	42,750	301,405	434,187
Billiard and bagatelle tables, &c..	3	12	13,500	6,400	4,950	16,600
Blacking.....	8	181	146,000	61,700	248,787	456,322
Bleaching and dyeing.....	75	709	819,900	319,831	5,834,424	6,927,053
Bookbinding.....	70	1,734	1,557,557	635,454	1,763,432	3,362,395
Boot and shoe findings.....	24	295	130,350	89,458	151,026	319,819
Boots and shoes.....	200	6,864	3,269,302	2,955,327	3,908,227	9,231,348
Bottling.....	8	37	26,550	11,800	23,916	76,703
Boxes, cigar.....	11	57	18,500	16,686	35,035	74,670
paper.....	26	931	177,500	203,472	203,491	592,951
wooden.....	34	194	132,800	88,511	146,144	355,302
Brass founding and finishing.....	40	482	661,985	211,210	391,432	969,344
rolled.....	3	20	25,500	11,960	36,255	61,000
ware.....	2	53	61,500	17,400	21,200	53,000
Bread and other bakery products.....	531	1,619	1,287,625	523,095	2,132,832	3,781,184
Brick.....	89	3,080	2,294,500	1,223,715	701,034	3,112,906
Bronze castings.....	1	6	6,000	3,744	3,600	10,000
Brooms and whisp-brushes.....	14	118	50,500	39,438	121,799	203,606
Brushes.....	37	487	319,614	132,728	215,537	464,129
Buttons.....	18	360	170,800	116,174	141,165	369,200
Cards, playing.....	1	61	100,000	20,600	72,800	110,000
other than playing.....	4	102	189,000	26,850	206,900	276,500
Carpets, rag.....	59	177	86,350	33,882	84,720	172,878
other than rag.....	177	4,814	2,911,300	1,845,002	5,527,478	9,625,141
Carriage trimmings.....	2	21	11,000	6,227	4,304	12,862
Carriages and wagons.....	115	1,603	1,838,097	909,551	667,808	2,281,361
children.....	5	49	66,100	30,702	32,290	90,607
Cars, freight and passenger.....	9	1,500	1,581,000	738,466	1,405,545	2,385,469
Charcoal.....	1	6	6,500	3,200	10,000	19,500
Cheese.....	2	17	50,500	7,264	25,690	51,380
Chocolate.....	1	6	14,000	1,000	14,000	32,000
Chromos and lithographs.....	33	448	572,900	222,400	187,378	739,184
Clothing, children's.....	12	114	150,000	36,700	261,230	354,600
men's.....	506	13,073	7,415,459	3,560,625	9,051,657	16,429,067
women's.....	71	746	482,034	213,822	428,332	974,265
Coal oil, refined.....	15	207	792,000	133,100	1,082,979	1,404,582
Coffee and spices, ground.....	16	171	377,800	82,946	1,019,035	1,299,235
Coffins.....	42	164	212,150	75,158	62,290	278,376
Collars and cuffs, paper.....	1	75	65,000	28,000	55,750	200,000
Combs.....	3	16	7,100	4,754	2,724	11,600
Confectionery.....	167	803	845,250	312,963	942,228	2,014,711
Cooperage.....	73	695	391,515	372,043	458,595	1,111,340
Coppersmithing.....	10	84	146,300	38,936	94,200	*199,350
Cordage and twine.....	6	191	508,700	104,520	423,852	921,570
Cork-cutting.....	8	125	101,600	38,336	117,541	246,735
Cosmetics.....	2	9	4,000	1,700	3,160	30,200
Cotton goods, (not specified).....	66	6,108	6,042,440	1,757,646	4,803,076	8,272,698
batting and wadding.....	7	29	29,000	8,700	36,489	53,612
thread, twine and yarn.....	1	42	48,000	8,000	35,000	45,000
Crucibles.....	4	48	129,000	19,500	152,100	312,000
Curled hair.....	2	162	1,625,000	97,200	575,067	801,300
Cutlery.....	18	124	76,030	41,208	33,742	135,092
and edge-tools.....	2	29	43,500	16,000	16,150	34,500
Dentists' materials.....	6	322	797,000	234,500	140,250	512,500
Drugs and chemicals.....	73	1,270	4,383,200	644,388	4,386,082	7,023,711
Dye woods and stuffs, ground.....	1	14	20,000	4,500	5,500	20,000
dge- tools, axes.....	5	105	101,900	58,160	36,382	138,480

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
PHILADELPHIA—Continued.						
Enameling.....	2	17	10,000	7,700	10,000	21,450
Engraving.....	31	242	147,600	111,944	57,954	274,440
and stencil-cutting.....	37	107	56,575	37,371	15,930	103,520
Envelopes.....	6	245	230,000	60,408	136,850	313,600
Fertilizers.....	12	341	1,405,000	204,054	791,756	1,485,452
Files.....	10	137	64,100	40,163	28,414	90,690
Fire-arms, small arms.....	3	71	145,000	40,000	14,900	77,000
Flax and linen goods.....	1	11	15,000	2,400	2,400	12,000
Flouring-mill products.....	23	195	624,500	101,260	3,781,003	4,822,228
Food preparations, animal.....	9	74	75,000	28,147	191,150	259,950
vegetable.....	4	56	71,800	37,450	140,875	224,350
macaroni and vermicelli.....	1	6	10,000	1,300	7,280	35,672
Frames, mirror and picture.....	33	565	528,850	298,923	396,981	1,034,853
Fruits and vegetables, canned.....	7	425	230,000	80,200	203,435	488,000
Furniture, (not specified).....	205	2,618	2,760,205	1,437,128	1,697,813	4,773,301
chairs.....	32	280	222,350	119,951	102,596	357,557
refrigerators.....	6	36	43,200	21,636	16,215	72,400
Furs, dressed.....	44	457	628,350	114,241	497,718	959,888
Galvanizing.....	4	111	169,000	68,500	466,296	639,526
Gas.....	2	1,143	7,900,000	990,378	1,141,557	3,004,375
Gasometers.....	1	20	30,000	6,500	56,000	100,000
Gas and lamp fixtures.....	9	919	1,134,894	441,484	423,447	1,171,783
Gilding.....	15	82	60,850	33,150	48,202	157,300
Glass, cut.....	2	10	1,100	3,500	5,030	13,000
stained.....	3	46	27,000	29,228	33,300	99,380
ware.....	3	1,174	1,053,916	454,616	403,672	1,365,643
window.....	2	250	190,000	100,000	103,620	245,000
Gloves and mittens.....	3	31	29,100	9,764	3,660	24,092
Glue.....	1	99	1,000,000	60,000	200,000	425,000
Gold leaf and foil.....	7	195	149,100	71,314	164,130	287,324
Grease and tallow.....	7	46	128,175	35,578	432,581	587,706
Gunsmithing.....	15	42	30,800	14,397	10,903	41,105
Hair-cloth.....	2	93	85,000	22,500	37,450	74,300
work.....	32	248	96,125	38,944	75,115	187,980
Hand-stamps.....	1	2	500	150	1,200	10,000
Hardware.....	47	513	449,500	239,583	398,822	845,491
saddlery.....	8	109	69,500	36,150	37,224	107,938
Hat-materials.....	8	42	66,525	12,141	42,648	95,125
Hats and caps.....	51	1,125	564,575	491,571	720,547	1,688,306
Heating-apparatus.....	27	342	511,580	252,120	413,487	1,197,066
Hides and tallow.....	4	18	78,000	9,600	364,694	416,500
Hinges, wrought and cast.....	1	14	8,000	6,500	5,262	18,000
Hones and whetstones.....	1	12	5,000	4,000	3,800	10,000
Hoop-skirts and corsets.....	18	100	60,250	21,480	41,325	91,960
Hosiery.....	72	4,702	2,871,900	1,243,736	2,821,995	5,164,405
Hubs and wagon-material.....	3	40	92,000	19,669	49,750	80,600
Ink, printing.....	4	55	118,000	34,860	138,612	207,120
writing.....	5	34	27,300	5,300	10,121	31,423
Instruments, professional.....	27	222	326,300	105,541	65,818	317,288
Iron, forged and rolled.....	11	1,046	1,493,500	708,820	1,863,994	2,970,492
anchors.....	1	36	15,000	12,000	102,000	135,000
bolts, nuts, washers, &c.....	17	770	900,100	408,809	697,330	1,392,132
pipes, wrought.....	3	859	3,100,000	500,800	1,978,025	3,305,760
railing, wrought.....	6	36	22,500	15,986	11,259	47,278
ship-building and engines.....	1	352	750,000	210,000	187,000	472,000
eastings, (not specified).....	63	2,551	3,844,424	1,416,284	2,539,551	5,226,459
stoves, heaters, &c.....	9	980	2,270,000	546,900	583,026	1,678,532
Japaned ware.....	2	11	4,200	3,000	2,980	10,500

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.							
	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....	
PHILADELPHIA—Continued.			Dolls.	Dolls.	Dolls.	Dolls.	
Jewelry, (not specified)	49	628	836,850	335,035	583,926	1,455,741	
gold and silver.....	4	55	58,000	27,750	76,870	128,000	
and instrument cases	12	111	38,700	34,260	25,261	100,300	
Kindling wood.....	5	34	33,900	10,935	24,230	40,060	
Lampblack.....	3	14	33,000	4,900	27,350	42,700	
Lamps and lanterns.....	7	84	53,700	39,106	79,322	151,000	
Lasts.....	6	53	36,300	21,322	8,863	41,634	
Lead, pipe	2	37	600,000	20,000	470,000	590,000	
shot	1	7	50,000	4,000	80,000	88,000	
Leather, tanned.....	23	337	1,003,172	198,430	1,121,950	1,651,643	
curried.....	32	205	354,528	107,654	1,037,580	1,294,288	
morocco, tanned, &c.	24	995	1,324,778	536,572	2,028,480	3,190,041	
dressed skins	13	115	298,500	55,737	220,122	346,074	
Lightning rods.....	3	81	152,100	23,000	156,429	362,700	
Lime.....	3	14	14,000	6,008	17,707	34,875	
Liquors, distilled.....	28	182	1,066,000	81,246	861,220	1,940,255	
malt.....	57	648	3,325,850	344,632	1,900,525	3,380,613	
Locomotive head lights.....	1	42	25,000	8,500	10,000	33,500	
Looking-glass.....	4	50	99,000	23,700	73,300	166,000	
Lumber, planed.....	11	251	443,300	150,200	424,040	708,175	
sawed.....	10	197	932,890	98,653	799,952	1,116,946	
Machinery, (not specified).....	107	3,623	5,470,710	1,950,104	2,038,674	5,841,886	
cotton and woolen....	26	853	1,583,800	396,001	506,850	1,436,449	
locomotives	3	2,178	2,275,000	1,468,382	1,799,832	3,490,279	
engines and boilers....	30	1,098	1,582,241	605,404	1,136,816	2,450,224	
Malt	8	149	875,000	73,950	786,836	1,063,500	
Maps and atlases.....	9	38	45,000	8,362	24,416	52,947	
Marble and stone work, (n. s.) ..	88	1,394	2,004,500	808,526	1,239,799	3,071,709	
tombstones.....	18	219	299,500	108,773	168,660	399,650	
Masonry, brick and stone.....	14	59	8,350	31,960	40,324	89,990	
Matches.....	4	217	72,000	33,500	51,050	218,662	
Mats and rugs.....	3	10	5,000	2,200	4,050	11,450	
Meat, cured and packed.....	13	200	1,861,000	131,010	2,994,550	4,300,802	
packed, beef.....	1	7	50,000	5,000	167,000	148,000	
pork.....	7	97	801,000	50,600	1,591,340	2,028,800	
Meters	3	162	190,000	100,340	166,900	319,690	
Millinery.....	94	848	369,650	156,388	256,208	657,984	
Mill-stones.....	3	20	23,000	13,296	11,200	40,000	
Mineral and soda waters.....	13	112	68,000	38,622	65,432	199,496	
Molasses and sugar, refined.....	14	1,154	5,494,000	615,408	23,809,762	25,949,876	
Musical instruments, (n. s.) ..	10	30	26,100	7,956	11,489	37,725	
organs.....	5	47	38,500	29,185	18,318	53,513	
pianos.....	10	314	528,500	186,150	213,406	494,100	
Needles.....	3	14	5,000	4,577	1,010	10,536	
Oil, animal.....	9	53	382,000	28,800	750,150	1,049,000	
fish.....	1	10	145,000	6,000	159,500	200,000	
vegetable, (not specified)....	2	11	32,000	6,255	39,923	54,438	
linseed.....	4	100	520,000	61,600	461,275	673,490	
Oil floor-cloth.....	3	217	360,000	84,252	340,320	543,995	
Oysters, fish and fruit, canned....	1	31	16,000	8,000	10,250	35,000	
Paints, (not specified)	7	60	477,000	31,170	292,900	474,200	
lead and zinc.....	16	369	1,273,250	194,122	1,444,041	2,479,408	
Paper, (not specified)	5	62	67,500	22,100	66,480	146,200	
printing.....	5	607	2,050,000	293,100	1,430,035	1,245,711	
wrapping	1	22	125,000	14,400	71,400	96,000	
hangings.....	5	397	933,000	129,540	549,450	884,500	
Patent medicines.....	43	365	1,526,084	152,339	2,988,302	6,101,592	
Patterns and models.....	23	162	101,550	89,042	44,661	200,938	

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments,	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
PHILADELPHIA—Continued.						
Pens, steel.....	1	39	30,000	8,000	11,468	30,000
Perfumery and fancy soaps.....	19	283	526,500	190,110	261,216	768,345
Pipes, tobacco.....	4	113	43,000	60,500	23,120	110,850
Plaster.....	6	87	175,500	56,950	104,465	227,200
Plated ware.....	29	292	214,200	121,083	149,110	427,112
Pocket-books.....	7	62	30,500	22,351	37,140	79,100
Polishing preparations.....	2	14	26,000	3,200	36,600	55,100
Preserves and sauces.....	1	6	7,000	2,000	13,500	28,000
Printers' fixtures.....	7	24	14,500	9,470	8,225	28,175
Printing of cloths.....	6	673	1,495,000	273,380	4,673,960	5,713,584
Printing and publishing, (n. s.).....	76	3,115	7,703,500	2,054,575	3,866,722	10,107,451
job.....	76	734	714,800	334,384	362,482	1,041,714
Pumps.....	6	45	39,100	22,736	15,425	51,364
Putty.....	4	44	125,000	19,000	154,800	226,400
Roofing-materials.....	25	248	159,300	113,296	204,391	474,186
Saddlery and harness.....	87	614	588,600	263,595	509,577	1,135,453
Safes, doors, vaults, (fire-proof).....	6	134	180,400	86,310	81,548	284,743
Sails.....	9	89	50,300	53,453	72,439	152,514
Sand and emery paper and cloth.....	1	55	900,000	35,000	66,000	250,000
Sash, doors and blinds.....	45	751	1,047,835	459,700	812,555	1,656,438
Saws.....	8	619	760,500	413,615	466,250	1,037,700
Scales and balances.....	8	88	79,000	36,800	30,974	114,760
School slates.....	1	6	6,000	2,500	5,500	10,000
Screws.....	3	19	9,500	6,949	6,921	34,400
Sewing-machine fixtures.....	4	73	47,000	31,670	30,640	98,650
Sewing-machines.....	8	325	721,500	201,300	188,928	685,500
Ship building and repairing.....	32	648	962,800	344,661	361,608	1,085,177
Shoddy.....	3	46	63,000	20,104	73,110	171,550
Shovels and spades.....	5	108	190,000	55,100	174,700	365,000
Show-cases.....	3	15	9,600	8,900	17,150	41,260
Silk, (not specified).....	8	817	1,254,000	303,900	720,874	1,332,900
sewing and twist.....	2	119	175,000	22,500	198,150	300,000
Silver-ware.....	9	156	254,000	82,461	170,350	347,000
Soap and candles.....	52	594	1,372,200	245,903	1,311,129	2,490,941
Soda-water apparatus.....	3	40	55,000	18,340	37,040	89,000
Spectacles and eye-glasses.....	5	33	46,025	11,908	40,338	87,543
Starch.....	2	12	30,000	5,300	30,825	49,800
Steel, cast.....	6	532	1,450,000	281,282	1,030,273	1,858,250
springs.....	8	147	1,161,000	77,202	355,709	687,763
Stereotyping and electrotyping.....	10	555	937,000	320,700	148,950	792,200
Stone and earthen ware.....	19	535	722,000	190,892	330,722	877,550
Straw goods.....	4	396	77,500	68,670	54,455	189,242
Tin, copper and sheet-iron ware.....	219	1,284	328,643	533,750	875,994	2,096,543
Tobacco, cigars.....	3	33	114,600	11,400	17,505	75,720
(not cigars) and snuff.....	8	53	63,500	17,096	69,993	151,470
cigars.....	391	1,680	963,140	593,202	888,622	2,112,521
Toys.....	7	81	31,000	19,880	14,151	61,900
Trunks, valises and satchels.....	27	252	155,875	124,612	242,282	468,377
Trusses, bandages, supporters.....	4	57	27,000	33,950	19,145	72,790
Type-founding.....	4	75	116,785	38,135	34,140	103,000
Umbrella furniture.....	4	360	244,500	130,719	190,600	429,850
Umbrellas and canes.....	22	1,348	1,013,982	342,210	1,050,300	2,044,726
Upholstery.....	77	671	564,638	192,017	536,757	1,222,094
Varnish.....	4	19	115,000	12,500	124,935	330,000
Vinegar.....	8	28	82,200	10,056	83,382	190,293
Washing machines.....	4	42	116,800	15,900	35,755	191,660
Watch-cases, gold and silver.....	10	136	145,000	89,685	275,962	443,160
Whips.....	8	53	150,106	14,494	32,317	70,575

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments,	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
PHILADELPHIA—Continued.						
Willow ware, &c.....	14	29	10,450	4,520	5,211	18,378
work.....	20	225	168,200	63,081	137,864	272,720
Wood brackets, mouldings, &c...	7	93	120,800	55,382	96,120	235,498
Wooden ware.....	5	52	80,200	24,520	79,854	185,100
Wood, turned and carved.....	55	567	218,502	221,993	186,969	707,452
Wood-work, miscellaneous.....	5	20	10,800	8,696	10,020	25,560
Wool-carding and cloth-dressing..	4	14	12,500	3,102	9,320	19,300
Woolen goods.....	123	7,528	8,101,050	2,719,868	11,173,987	17,943,826
Worsted goods.....	29	3,724	3,149,600	1,330,175	4,858,286	7,762,369
Zinc, smelted and rolled.....	1	2	8,520	1,580	12,538	20,460
PIKE.						
Boat building.....	1	8	6,500	4,000	5,500	10,800
Flouring-mill products.....	1	2	8,000	820	25,500	29,000
Jewelry.....	1	18	10,000	12,000	30,000	47,000
Leather, tanned.....	5	46	125,000	16,300	190,035	266,338
curried.....	2	7	20,000	3,300	73,263	90,144
Lumber, sawed.....	11	85	246,000	35,220	68,968	129,700
POTTER.						
Extract hemlock bark.....	1	12	35,000	4,500	9,400	35,300
Leather, tanned.....	2	4	10,200	1,200	9,110	12,187
curried.....	1	2	8,000	800	10,351	12,000
Lumber, sawed.....	10	72	90,500	19,766	66,431	131,110
SCHUYLKILL.						
Boots and shoes.....	5	38	30,500	19,800	17,476	46,800
Bottling.....	6	18	5,550	4,500	8,170	20,060
Bread and other bakery products,	13	37	13,250	8,500	20,133	41,850
Carpets, rag.....	14	47	9,470	2,636	15,281	30,738
Carriages and wagons.....	10	64	26,100	25,025	22,975	63,478
Cars, freight and passenger.....	5	18	19,000	7,038	24,300	39,038
Clothing, men's.....	55	335	185,075	73,832	216,103	425,062
women's.....	13	59	3,950	4,676	7,950	21,260
Confectionery.....	17	50	19,000	13,420	34,640	67,806
Cooperage.....	6	9	2,125	1,500	6,770	10,300
Flouring-mill products.....	47	151	416,550	45,257	1,075,780	1,247,834
Frames, mirror and picture.....	3	7	5,500	700	3,800	10,500
Furniture, (not specified).....	29	125	74,250	32,001	28,014	123,305
chairs.....	4	24	7,500	9,004	7,675	27,000
Gas.....	1	8	10,500	3,636	10,711	32,953
Gunpowder.....	6	35	100,300	15,069	138,052	177,543
Iron, forged and rolled.....	4	861	438,700	351,266	1,319,218	1,850,501
pigs.....	4	155	511,341	79,623	517,504	935,508
castings.....	23	288	463,232	133,861	249,967	482,652
Jewelry.....	2	3	8,000	750	9,440	16,700
Leather, tanned.....	15	52	116,485	18,813	118,494	169,162
curried.....	11	12	17,015	2,761	26,940	33,142
Lime.....	5	14	7,800	2,635	11,820	19,577
Liquors, malt.....	8	99	373,500	54,391	211,511	444,051
Lumber, sawed.....	21	148	120,900	74,124	88,990	257,220
Machinery, (not specified).....	7	167	309,766	72,366	151,108	336,057
engines and boilers... ..	15	521	398,100	174,759	277,359	685,190
Marble-work, tombstones.....	4	19	9,700	7,020	7,300	23,400
Masonry, brick and stone.....	8	34	4,300	13,238	8,500	30,010
Millinery.....	20	71	25,750	8,561	57,450	85,000

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments..	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
SCHUYLKILL—Continued.			<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>
Printing, newspaper.....	5	50	36,000	27,700	20,208	77,400
Saddlery and harness.....	20	57	37,840	14,292	17,960	57,982
Sash, doors and blinds.....	3	23	6,500	7,600	127,800	146,000
Ship building and repairing.....	3	39	18,500	14,560	30,260	59,044
Soap and candles.....	6	17	31,000	4,880	35,316	48,608
Tin, copper and sheet-iron ware...	27	99	74,700	24,134	43,139	110,392
Tobacco, cigars.....	25	102	82,900	30,877	40,208	124,026
Upholstery.....	4	17	4,850	5,900	6,600	15,600
Wire work.....	7	31	21,900	8,744	19,410	49,020
SNYDER.						
Carriages and wagons.....	3	16	4,500	5,740	9,900	18,500
Flouring-mill products.....	21	40	145,000	5,334	188,251	214,753
Leather, tanned.....	11	22	44,438	2,290	40,941	48,031
curried.....	10	12	12,425	1,140	21,456	25,935
Lumber, sawed.....	8	130	143,000	31,830	120,000	201,000
SOMERSET.						
Carriages and wagons.....	19	48	20,140	9,202	13,444	35,276
Clothing, men's.....	10	20	7,775	2,300	12,050	20,720
Flouring-mill products.....	1	2	3,000	300	10,017	11,302
Furniture.....	11	24	6,475	2,320	3,861	12,337
Iron, castings, stoves, &c.....	3	18	25,400	5,900	15,700	42,200
Leather, tanned.....	23	46	72,220	8,448	63,286	87,388
curried.....	19	32	20,445	2,042	56,040	64,935
Liquor, distilled.....	2	5	5,700	2,072	6,362	20,156
Lumber, sawed.....	16	203	171,080	44,410	58,400	171,760
Printing, newspaper.....	3	15	14,500	2,200	2,228	10,671
Saddlery and harness.....	19	38	10,635	3,471	12,702	26,507
Woolen goods.....	14	43	51,335	5,552	45,243	65,216
SULLIVAN.						
Flouring-mill products.....	1	2	10,000	400	13,550	16,230
Leather, tanned.....	5	78	208,000	44,700	113,595	216,600
curried.....	2	2	2,500	900	6,780	11,100
Lumber, sawed.....	6	24	24,500	5,020	8,290	19,160
SUSQUEHANNA.						
Agricultural implements.....	3	56	83,000	23,500	43,600	83,500
Carriages and wagons.....	32	73	47,800	16,428	22,011	65,067
Drugs and chemicals.....	2	29	53,000	12,200	14,000	58,130
Flouring-mill products.....	6	13	40,300	2,450	88,730	104,940
Furniture, (not specified,).....	8	25	22,000	6,200	6,833	26,160
chairs.....	2	19	31,000	10,800	18,500	35,750
Iron, castings.....	4	42	118,500	20,917	64,908	87,850
Leather tanned,.....	18	229	552,100	117,360	767,405	1,179,380
Lumber, sawed.....	52	138	199,300	50,995	94,465	110,230
Machinery, railroad-repairing.....	3	575	4,893,000	323,804	351,985	679,009
Printing, newspaper.....	2	10	13,200	6,000	6,700	16,000
Saddlery and harness.....	11	16	6,550	800	6,165	14,801
Tin, copper and sheet-iron ware...	6	13	24,500	4,600	9,200	23,200
Tobacco, cigars.....	3	13	27,000	8,500	11,500	30,400
Toys.....	1	22	20,000	9,400	3,800	52,000
Woolen goods.....	5	27	40,500	3,810	22,685	32,500

SELECTED STATISTICS OF MANUFACTURES.

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FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments,	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
TIOGA.						
Agricultural implements	3	12	15,000	5,100	7,256	20,070
Boots and shoes.....	2	11	9,000	2,400	3,750	11,150
Carriages and wagons.....	28	54	35,830	9,780	11,624	49,228
Cheese.....	7	17	15,700	1,923	25,568	34,161
Flouring-mill products.....	10	30	75,200	7,600	192,010	223,745
Furniture.....	12	54	48,900	11,826	10,510	37,822
Glassware.....	2	62	80,000	50,000	16,654	135,000
Iron, castings.....	2	4	10,000	1,000	5,243	15,040
Leather, tanned.....	13	93	144,050	41,509	381,105	555,020
Lumber, sawed.....	46	341	330,973	113,994	248,156	550,829
Saddlery and harness.....	11	22	12,850	6,500	15,950	30,517
Sash, doors and blinds.....	5	68	40,700	23,700	69,310	171,530
Tin, copper and sheet-iron ware..	5	17	19,000	6,900	8,848	25,811
Woolen goods.....	1	10	20,000	5,000	12,600	20,000
UNION.						
Agricultural implements	2	108	83,813	58,624	98,987	337,808
Boats.....	1	15	30,000	8,325	20,000	32,000
Carriages and wagons.....	12	37	9,000	8,120	8,784	29,435
Clothing, men's.....	3	16	3,200	2,200	7,000	12,000
Flouring-mill products	10	25	119,500	7,060	167,624	198,407
Iron, pigs.....	2	181	140,000	32,700	94,460	172,456
castings.....	2	8	25,000	4,348	28,794	45,500
Leather, tanned.....	8	19	29,100	2,682	21,060	29,617
Lumber, planed.....	1	25	17,000	4,000	12,100	20,000
sawed.....	4	63	104,000	37,500	62,350	165,400
Woolen goods.....	1	31	50,000	9,872	26,214	55,853
VENANGO.						
Boots and shoes.....	6	37	9,200	25,624	30,925	65,739
Carriages and wagons.....	16	32	12,650	12,380	9,849	34,159
Clothing, men's.....	8	29	16,075	13,650	23,624	42,320
Coal oil, rectified.....	24	148	343,600	115,610	2,467,639	2,815,140
Cooperage.....	22	59	12,140	18,000	28,902	63,869
Flouring-mill products	10	17	63,200	2,900	134,958	154,160
Liquors, malt.....	2	8	18,000	4,300	15,220	30,424
Lumber, sawed.....	9	68	47,650	17,705	21,187	73,510
Machinery, (not specified)	23	164	219,800	126,991	123,287	362,606
engines and boilers ..	2	21	13,000	10,200	25,550	48,000
Millinery.....	6	17	3,750	2,456	5,120	12,200
Pumps.....	5	15	8,200	4,800	10,740	27,050
Tin, copper and sheet-iron ware ..	8	30	26,300	18,300	42,855	91,850
Woolen goods.....	5	48	69,200	19,575	35,950	63,086
WARREN.						
Carriages and wagons.....	18	30	15,700	3,845	6,505	26,355
Clothing, men's.....	8	32	21,950	9,700	25,300	45,250
Coal-oil, rectified.....	4	14	18,100	10,328	57,936	105,800
Cooperage	8	18	39,150	5,225	11,265	27,310
Flouring-mill products.....	9	18	75,000	5,120	133,445	162,637
Iron, castings.....	3	14	29,500	6,400	20,542	36,320
Leather, tanned.....	10	191	527,700	27,000	590,303	908,135
Liquors, malt.....	3	8	30,500	2,200	5,490	14,732
Lumber, planed.....	4	10	11,500	2,700	22,125	28,825
sawed.....	105	803	1,260,350	237,352	381,251	1,115,696
Machinery, railroad-repairing.....	1	5	8,000	5,000	1,750	10,000
engines and boilers....	1	65	125,000	44,000	47,850	120,000

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
WARREN—Continued.						
Masonry, brick and stone.....	18	18	1,900	.....	2,780	16,439
Millinery.....	4	9	3,300	1,500	7,000	11,900
Oars.....	1	9	2,500	3,000	3,100	15,000
Patent medicines.....	1	12	22,000	6,000	12,585	44,000
Printing, job.....	3	14	3,200	4,600	4,260	14,100
Saddlery and harness.....	6	12	15,850	2,150	12,699	19,340
Sash, doors and blinds.....	1	12	42,000	12,000	17,600	35,000
Tin, copper and sheet-iron ware ..	5	17	12,500	5,500	12,377	24,345
Tobacco, cigars.....	1	17	10,000	13,000	15,000	32,000
Wood, turned and carved.....	2	10	3,050	3,000	3,600	18,300
Woolen goods.....	2	10	4,200	2,600	9,333	17,095
WASHINGTON.						
Boats.....		159	59,500	67,200	105,797	229,353
Boots and shoes.....	1	6	1,000	3,000	5,200	10,700
Carriages and wagons.....	25	98	47,725	29,508	21,704	86,833
Clothing, men's.....	7	69	36,250	21,380	34,050	74,125
Flouring-mill products.....	11	35	69,280	7,640	98,813	163,924
Furniture.....	11	24	13,200	5,855	4,123	21,775
Leather, tanned.....	8	24	38,800	6,715	36,969	53,188
curried.....	3	5	9,500	2,320	28,538	36,910
Liquors, distilled.....	10	32	85,050	7,985	98,701	201,336
Lumber, planed.....	6	66	112,500	26,250	99,650	160,880
sawed.....	12	45	67,800	9,514	45,266	80,824
Marble and stone work.....	4	19	13,000	9,800	6,933	20,250
Masonry, brick and stone.....	6	20	1,200	3,150	17,570	28,525
Paper, printing.....	1	34	60,000	24,000	17,000	80,000
Printing and publishing.....	2	15	14,000	4,000	5,815	10,700
Saddlery and harness.....	18	30	10,483	5,886	13,325	31,933
Tin, copper and sheet-iron ware ..	12	23	10,255	5,050	10,492	26,100
Tobacco, cigars.....	6	39	11,250	6,900	7,020	19,967
Woolen goods.....	6	36	36,500	12,400	31,591	56,685
WAYNE.						
Agricultural implements.....	6	15	9,800	2,650	2,825	15,730
Bread and other bakery products.....	3	9	3,000	1,720	7,500	15,000
Carriages and wagons.....	11	36	21,400	15,300	10,825	48,000
Clothing, men's.....	6	47	14,275	12,120	25,000	46,800
Cooperage.....	1	6	4,000	3,000	3,000	10,000
Flouring-mill products.....	10	27	105,000	11,500	229,002	288,889
Furniture.....	8	32	20,000	12,200	11,315	32,825
Gas.....	1	3	12,000	1,800	3,200	12,500
Hubs and wagon material.....	1	9	6,000	5,000	4,000	15,000
Iron, castings.....	3	15	8,000	6,120	11,488	22,500
Leather, tanned.....	18	470	1,307,700	200,542	1,479,444	2,098,642
Lumber, planed.....	2	9	3,500	2,700	6,000	30,800
sawed.....	63	364	590,250	104,082	235,760	514,933
Machinery, engines and boilers.....	1	13	15,000	4,600	16,000	25,000
Saddlery and harness.....	7	20	9,500	4,500	7,007	19,750
Sash, doors and blinds.....	2	14	10,000	2,700	7,000	18,200
Ship building and repairing.....	2	37	16,000	15,600	32,000	61,000
Tin, copper and sheet-iron ware ..	4	14	14,100	5,300	8,058	27,775
Tobacco, cigars.....	3	14	8,000	5,600	4,850	14,800
Wood, turned and carved.....	5	49	67,000	17,300	13,826	41,575
Woolen goods.....	1	19	15,000	10,000	23,600	34,000

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments,	Hands employed	Capital.....	Wages.....	Materials.....	Products.....
			Dolls.	Dolls.	Dolls.	Dolls.
WESTMORELAND.						
Agricultural implements	7	62	17,200	6,550	11,990	31,800
Boats.....	1	12	25,000	10,000	23,460	50,000
Brick	8	115	79,100	23,110	19,014	77,650
Carriages and wagons.....	23	76	30,060	15,450	14,208	52,554
Cars, freight and passenger.....	1	50	100,000	22,000	45,000	70,000
Coal-oil, rectified.....	1	16	50,000	7,200	201,250	210,500
Cooperage.....	8	23	6,700	5,180	3,833	10,278
Flouring-mill products.....	23	53	157,300	12,127	368,987	417,941
Furniture.....	5	16	7,800	2,950	3,455	14,931
Iron, castings.....	5	36	34,500	9,050	8,474	24,500
Leather, tanned.....	31	79	151,340	14,035	142,537	198,161
curried	16	21	20,780	2,190	74,273	104,850
Liquors, distilled.....	8	50	280,500	30,297	201,965	446,829
Lumber, planed	7	62	70,700	25,700	72,120	123,545
sawed	7	29	34,800	11,500	26,213	47,600
Paper, wrapping.....	2	44	60,000	17,000	17,800	40,000
Printing, newspaper.....	3	9	13,500	2,812	2,830	14,800
Saddlery and harness.....	16	33	11,250	5,350	13,297	27,532
Salt.....	4	16	8,500	3,310	3,210	15,360
Tin, copper and sheet-iron ware ..	14	24	13,600	1,890	10,089	19,745
Woolen goods.....	9	49	67,500	7,286	25,500	37,357
WYOMING.						
Boots and shoes.....	1	6	1,000	4,000	5,000	12,000
Carriages and wagons.....	13	37	8,850	8,880	8,975	38,150
Flouring-mill products.....	11	32	156,500	10,295	269,914	330,784
Iron, castings.....	4	17	33,500	7,226	5,672	17,890
Leather, tanned.....	8	39	41,900	17,560	101,700	135,575
curried	3	4	2,600	200	12,065	18,050
Lumber, sawed.....	18	62	57,200	19,362	43,290	109,960
Saddlery and harness.....	7	17	4,600	4,500	9,925	20,400
Tobacco, cigars.....	3	14	3,300	3,800	1,890	11,500
Wool-carding and cloth-dressing..	3	5	5,250	330	7,920	10,980
YORK.						
Agricultural implements.....	14	152	134,500	52,940	77,415	162,859
Bark, ground.....	3	6	13,500	1,000	10,840	15,935
Boots and shoes.....	3	23	6,500	4,780	5,121	20,550
Boxes, cigar.....	2	16	3,000	3,380	10,949	16,160
Bread and other bakery products,	5	16	5,000	4,794	20,837	29,588
Brick	15	94	19,550	12,973	14,518	45,770
Carpets, rag.....	24	40	5,700	2,610	20,048	31,542
Carriages and wagons.....	49	176	77,400	48,430	47,827	142,008
Cars, freight and passenger.....	3	243	198,000	106,500	537,050	691,000
Clothing, men's.....	25	73	20,560	9,784	29,129	58,991
Confectionery.....	12	27	12,550	2,898	18,873	30,410
Cooperage.....	16	51	9,575	12,958	17,402	39,841
Flouring-mill products	42	107	425,087	19,368	855,663	980,499
Food preparations, animal.....	1	14	45,000	5,000	42,500	90,000
Furniture.....	17	49	21,400	11,274	10,056	34,990
Gas.....	1	5	55,000	2,880	5,205	19,626
Gunpowder.....	1	2	5,600	800	6,789	12,600
Iron, blooms.....	1	7	18,000	1,800	34,000	52,000
pigs.....	2	58	65,000	23,900	142,195	187,642
castings.....	6	162	131,500	52,599	131,129	210,284
Leather, tanned.....	27	61	125,800	12,609	199,895	240,658
curried	24	40	66,000	7,709	181,682	211,566

SELECTED STATISTICS OF MANUFACTURES.

FROM CENSUS OF 1870.

INDUSTRIES BY COUNTIES.	Establishments.	Hands employed	Products.....	Materials.....	Wages	Capital
YORK—Continued.			Dolls.	Dolls.	Dolls.	Dolls.
Lime.....	49	197	107,750	45,020	101,478	186,066
Liquors distilled.....	5	12	46,500	2,848	35,291	73,275
malt.....	4	22	24,000	5,900	15,180	33,810
Lumber, planed.....	1	13	14,000	6,150	6,250	14,500
sawed.....	19	123	188,600	37,073	226,237	366,535
Machinery, (not specified).....	5	44	64,800	23,825	24,407	59,575
railroad repairing.....	1	168	75,000	95,803	102,900	198,703
engines and boilers.....	1	12	4,000	5,000	14,920	54,500
Malt.....	1	17	50,000	3,000	70,600	85,000
Marble and stone work.....	7	17	7,180	4,812	7,460	20,060
Masonry, brick and stone.....	12	44	730	7,489	26,518	49,535
Molasses and syrup.....	9	46	8,400	1,425	6,530	13,740
Paper, printing.....	1	20	45,000	6,600	35,898	70,000
writing.....	1	43	30,000	8,500	25,370	57,500
Patent medicines.....	1	16	20,000	4,800	11,000	25,000
Printing, newspaper.....	5	31	21,000	6,480	11,631	28,730
Saddlery and harness.....	28	53	21,600	8,539	24,704	52,417
Sash, doors and blinds.....	2	28	28,000	13,500	15,910	36,000
Ship building and repairing.....	1	8	2,000	3,680	1,580	10,100
Stone and earthen ware.....	10	26	12,735	5,450	6,143	25,000
Tin, copper and sheet-iron ware.....	32	66	27,550	11,057	22,348	55,689
Tobacco, cigars.....	51	360	68,638	61,930	74,917	220,265
Whips.....	2	41	31,500	19,020	17,390	59,000
Woolen goods.....	8	38	46,000	5,925	26,523	52,655

TANNERIES IN PENNSYLVANIA.

The following statistics which were gleaned from the reports of the convention are of interest :

The tanneries of Pennsylvania represent a capital of about \$12,000,000. and a yearly business of \$40,000,000. There are nearly 900 establishments in the State, whose products realize to the owners annual receipts ranging from \$25,000 to \$400,000.

The State Tanners' association was organized last summer, with a membership of probably thirty, which number has since been increased to about seventy, twenty-two new firms having signed the constitution recently. The members of the association represent nearly half the tanning capital and business of the State, and considerably more than that proportion of the oak tanning interests. Very few manufacturers of leather from hemlock bark are members of the association.

The largest tannery in the State and country is located in Elk county. With it are connected about 1,000 vats, while the average is 100. A car load of leather is turned out daily, and the business of the manufactory amounts to several millions yearly. Extensive tanneries are also located at Shippensburg, Lewistown, Philadelphia, and other points.

The annual capacity of the tanneries represented in the State association is about 316,000 hides, and the products of last year amounted to nearly 300,000—two-thirds domestic and one-third South American. The insurance is about \$800,000, and during the past five years the losses have reached \$28,500, and the amount paid to insurance companies over \$50,000.

JUNE, 1873.

ANNUAL LUMBER REPORT

Estimate of Lumber in the Williamsport market, January 1, 1873, as furnished officially to the West Branch Lumbermen's Exchange.

YARDS.	Pine.....	Hemlock.....	Lath.....	Pickets.....
E. B. England & Co.....	3,025,000			25,000
Beaver Mills and Lumber Co.....	9,440,000		1,000,000	
Tabor & Goodrich.....	1,000,000	2,800,000	300,000	
Geo. W. Quinn.....	2,250,000		800,000	120,000
TenEyck, Emery & Co.....	5,500,000		2,700,000	
Barrows, Bowman & Co.....	5,000,000		1,630,000	167,000
Filbert, Otto & Co.....	5,000,000		2,000,000	150,000
Thompson, Harper & Co.....	5,618,480	338,300	1,582,700	47,260
Tinsman & Wolverton.....	7,127,500		757,000	
John DuBois.....	3,226,000	715,000	1,387,000	
P. G. Fessler & Co.....	4,881,661		1,380,000	
Starkweather & Munson.....	4,500,000		2,000,000	
Finley, Young & Co.....	5,700,000		2,700,000	25,000
Brown, Early & Co.....	8,703,000		1,332,800	283,060
Foresman, Merriman & Gibson.....	4,000,000		590,000	500,000
Slonaker, Howard & Co.....	2,750,000	125,000	1,000,000	100,000
White, Lentz & White.....	6,494,000		2,430,000	197,800
F. Coleman.....	6,610,205		1,994,200	148,210
Canfield & Colton.....	4,500,000	300,000	1,500,000	
Lutscher & Moore.....		2,000,000	50,000	400,000
B. H. Taylor & Son.....	4,000,000	550,000		
P. Herdic & Co.....	7,000,000		2,034,600	
Reading, Fisher & Co.....	4,397,000		1,130,100	30,650
Krouse, Herdic & Co.....	5,327,000	1,082,000	2,892,000	
Eder, Housel & Deemer.....	2,831,259			
Dodge, James & Stokes, } Henry James & Co. }	19,068,802	897,140	6,776,300	79,300
Total, Williamsport.....	137,949,907	8,807,440	39,966,700	2,273,280
Lock Haven.....	32,638,741	1,930,000	5,163,000	1,503,000
Port Deposit.....	4,000,000			
Baltimore.....	2,000,000			
Philadelphia.....	10,818,990			
Total, January 1, 1873.....	187,407,638	10,737,440	45,129,700	3,776,280
COMPARATIVE STATEMENT.— <i>Stock on hand January 1, 1872.</i>				
Williamsport.....	50,550,603	2,832,500	12,687,600	1,687,815
Lock Haven.....	7,179,000		710,000	410,000
Port Deposit.....	5,250,000			
Baltimore.....	2,250,000			
Philadelphia.....	13,486,280			472,890
Total, January 1, 1872.....	78,715,883	2,832,500	13,397,600	2,570,705
“ January 1, 1873.....	187,407,638	10,737,440	45,129,700	3,776,280
Difference.....	108,691,755	7,904,940	31,732,100	1,205,575

ANNUAL LUMBER REPORT.—CONTINUED.

YARDS.	Pine.....	Hemlock.....	Lath.....	Pickets.....
STOCK ON HAND JAN. 1, 1871.				
Williamsport.....	122,505,694	5,737,000	33,604,800	2,646,159
Lock Haven.....	22,312,000		2,289,000	720,000
Port Deposit.....	950,000			
Baltimore.....	3,000,000			
Philadelphia.....	10,249,971			245,133
Total, January 1, 1871.....	159,017,665	5,737,000	35,893,800	3,611,283
“ January 1, 1873.....	187,407,638	10,737,440	45,120,700	3,776,280
Difference.....	28,389,973	5,000,440	9,235,909	164,997
STOCK ON HAND JAN. 1, 1870.				
Williamsport.....	134,166,157	6,098,000	27,627,300	1,653,065
Lock Haven.....	58,500,000			
Port Deposit.....	1,500,000			
Baltimore.....	3,500,000			
Philadelphia.....	11,000,000			
Total, January 1, 1870.....	208,666,157	6,098,000	27,627,300	1,653,065
“ January 1, 1873.....	187,407,638	10,737,440	45,129,700	3,776,280
Difference.....	21,258,519	4,639,440	17,502,400	2,123,215

CLASSIFIED STATEMENT.

COMMONWEALTH OF PENNSYLVANIA,
OFFICE OF BUREAU OF STATISTICS OF LABOR AND OF AGRICULTURE, }
HARRISBURG, *March 1, 1873.*

To the Senate of Pennsylvania:

GENTLEMEN:—I have the honor to acknowledge a resolution of the Senate, passed February 28, 1873, asking me for a classified statement of the revenues of the Commonwealth for the fiscal year ending November 30, 1872.

My chief object in making up this classification was to satisfy myself of the amount of State tax imposed upon mining and manufacturing corporations; and, as your honorable body will, undoubtedly, be asked to remit several of these taxes, I add the amount, I understand the State Treasury has received from these sources in 1872.

The tax upon corporation stocks, No. 6, of Auditor General's report, so far as paid by mining and manufacturing companies, is as follows:

Coal, iron and mining companies.....	\$166,149 39
Improvement companies.....	11,459 13
Iron companies.....	44,694 03
Manufacturing companies.....	31,270 78
Oil companies.....	51,003 18
	<hr/>
	304,576 51
	<hr/>

This tax was originally imposed by act of April 29, 1844, (now 4th and 5th sections of act of May 1, 1868,) and was, upon corporate wealth, the equivalent of the three mill tax imposed by the same act upon all real and personal estate, or five per cent. on amount of dividends.

The second, called by Auditor General, tax on loans, No. 8 of his report, is not a tax upon the corporations, but upon the bondholders. The treasurers thereof are, however, required to retain five per cent. of all interest paid upon bonds and to pay the same to the State Treasurer:

Coal and iron companies.....	\$59,151 72
Manufacturing companies.....	1,932 47
	<hr/>
	61,084 19
	<hr/>

The last of this class, called in Auditor General's report No. 9, tax on net earnings or income, is the most onerous of all upon this class of corporations, as it falls as heavy upon non-dividend paying as upon dividend paying corporations. This three per cent. tax upon net earnings was originated by the act of 1864, (now sixth section of act May 1, 1868,) and has always been regarded as a grievous burden by the mining and manufacturing interest. The amount paid by them last year :

Coal and iron companies.....	\$52,008 65
Improvement.....	6,502 27
Iron companies.....	45,937 57
Manufacturing companies.....	19,091 87
Oil companies.....	39,479 75
	<hr/>
	163,020 11
	<hr/>

These companies probably all pay on corporation stocks five per cent. dividends; and, in addition, this three per cent. on net earnings. This tax repealed in 1873 as to manufacturing companies.

There is one other tax I understand you are asked to repeal, that is No. 10 of said report. Tax on gross receipts of transportation this last year amounted to: (Being three-fourths of one per cent. upon gross earnings.)

Canal companies.....	\$5,691 20
Railroad companies.....	450,156 32
	<hr/>
	455,847 52
	<hr/>

(This had been imposed as a war tax and was repealed by act of 1873.)

The aggregate of these would be:

No. 6—Corporation stocks.....	\$304,576 51
No. 8—Tax on loans.....	61,084 19
No. 9—Tax on net earnings.....	163,020 11
No. 10—Tax on gross receipts.....	455,847 52
	<hr/>
	984,528 33
	<hr/>

This brief statement of facts will enable you to comprehend the tables and the purpose for which they were immediately prepared.

I remain, with great respect, yours,

THOMAS J. BIGHAM,

Commissioner.

REVENUE OF THE COMMONWEALTH.

REVENUE OF THE COMMONWEALTH.

Classified statement showing the receipts at the State Treasury, from the several sources of revenue, during the financial year ending the 30th day of November, 1872, designating the industries on which charged.

TAX ON CORPORATION STOCKS.

One-half mill on each one per cent. dividend, equal to five per cent. of dividends. (Fourth and fifth sections of act of May 1, 1868.)

Bridges	\$14,083 46	
Turnpike	5,989 63	
		<hr/>
		\$20,073 09
Coal companies	128,192 83	
Coal and iron companies	34,906 85	
Coal and mining companies	3,049 71	
		<hr/>
		166,149 39
		<hr/>
		186,222 48
		<hr/>
City passenger railway companies	\$35,628 40	
Credit Mobilier of America	29,152 50	
Gas and water companies	19,714 73	
Improvement companies	11,459 13	
Transportation companies	43,428 85	
Insurance and fire insurance companies (domestic)	66,102 08	
Iron companies	44,694 03	
Manufacturing companies	31,270 78	
Oil companies	51,003 18	
Railroad companies	767,208 16	
Telegraph companies	4,303 50	
Miscellaneous	17,837 43	
		<hr/>
Total tax on corporation stocks		1,308,026 25
		<hr/>

TAX ON LOANS.

Five per cent. retained by Treasurer for State—new changed to tax on corporations borrowing—Section 11, act May 1, 1868.

County, city and borough	\$102,464 21
Coal and iron companies	59,151 72
Canal companies	29,678 77
City Passenger railways companies	5,314 75

REVENUE OF THE COMMONWEALTH.

91

Gas and water companies.....	\$1,219 75
Railroad companies.....	291,838 55
Manufacturing companies	1,932 47
Miscellaneous.....	807 06
	<hr/>
	492,407 28
	<hr/>

Tax, three per cent. on net earnings or income (6th section of act of May 1, 1868.) (Repealed as to manufacturing companies by act of 1873.)

Coal and iron companies	\$52,008 65
Banks.....	16,956 64
Bridges and turnpikes.....	11,158 52
City Passenger railways.....	33,191 25
Express and transportation companies.....	22,499 32
Gas and water companies.....	15,815 78
Improvement companies.....	6,502 27
Insurance and trust companies.....	50,287 51
Iron companies	45,937 57
Manufacturing companies.....	19,091 87
Oil companies.....	39,479 75
Private banks and bankers	26,810 15
Telegraphs	2,261 00
Miscellaneous.....	6,048 52
	<hr/>
	348,048 80
	<hr/>

Tax of three-fourths per cent. on gross receipts of transportation. (This was a war tax and was repealed by act of 1873.) (Section 8th, act May 1, 1868.)

Canal companies.....	\$5,691 20
Railroads	450,156 32
	<hr/>
	455,847 52
Notary public's tax.....	1,683 67
	<hr/>

TAX ON ENROLLMENT OF LAWS.

1st, 2d and 3d sections of act of May 1, 1868.....	<u>\$30,080 00</u>
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TAX ON TONNAGE.

First class, 2 cents; second class, 3 cents; third class, 5 cents per ton. (7th section act of May 1, 1868.)

Canals.....	\$26,435 94
Railroads.....	476,439 40
	<hr/>
	502,875 34
	<hr/>

REVENUE OF THE COMMONWEALTH.

TAX ON ANTHRACITE COAL.

Four cents per ton; these companies being both miners and transporters.
(9th section act of May 1, 1868.)

Delaware and Hudson canal company.....	\$91,480 12
Railroads	207,874 12
	<hr/>
	299,354 24
	<hr/>

COMMUTATION OF TONNAGE TAX.

Pennsylvania railroad commutation of tonnage tax, per act of March 7, 1861, and bond No. 17, both being payments for purchase of main line.....	\$460,000 00
Tax on writs, wills, deeds, &c.....	119,380 32
Tax on certain offices.....	20,770 56
Collateral inheritance tax.....	354,819 98
Tavern licenses.....	346,116 70
Retailers' licenses.....	424,941 83
Theatre, circus and menagerie licenses.....	3,020 45
Billiard room, bowling saloon and ten-pin alley licenses.....	7,064 59
Eating house, beer house and restaurant licenses.....	42,316 81
Pedlers' licenses.....	2,679 61
Brokers' licenses.....	5,335 75
Patent medicine licenses.....	1,112 00
Distillery and brewery licenses.....	5,821 45
Millers' tax.....	641 16
Foreign insurance companies, licenses and 3 per cent. on pre- miums, (act 11th of April, 1868,).....	351,396 08
Premiums on charters, (one-fourth of 1 per cent. on capital, section 15th of act of May 1, 1868.....	101,584 71
Pamphlet laws.....	510 20
Escheats.....	6,858 69
Dividend from stocks belonging to the Commonwealth.....	240 00
Annuity for right of way.....	10,000 00
Refunded cash.....	4,938 05
Fees of public officers.....	5,801 00
Sale of public property.....	19,343 76
Cases of conscience.....	880 00
Allegheny Valley railroad company—interest on her bonds owned by State.....	87,500 00
Accrued interest.....	4,204 31
	<hr/>

PENNSYLVANIA, HISTORICAL, STATISTICAL AND FINANCIAL.

Great Britain always claimed what is now Pennsylvania from her discoveries along the Atlantic coast; but there can be no doubt that the first actual exploration of the Delaware Bay was under the auspices of the Dutch East India company bearing the flag of the United Netherlands. The visit of Lord Delaware, (from whom it was named,) Governor of the colony of Virginia, was not until the following year, 1610. Vessels under the auspices of the Dutch occasionally visited the Delaware, and one of them, the *Restless*, ascending to the present site of Philadelphia, until in 1624 a sort of temporary military government was organized. These explorations and this military occupancy were by the Dutch, subordinate to the government at New Amsterdam, now New York, the principal seat of the Dutch Empire on this continent. The English ambassador at the Hague entered repeated protests against these settlements as encroachments upon the rights of the English crown. The Dutch East India company, however, in the face of these repeated protests, went on to erect forts and trading posts on both sides of the bay, but never conducted them upon the principles of legitimate colonization. Like all money-making corporations, their primary object was to collect revenue from the trade of the native Indians, and any cultivation of the soil was a secondary consideration.

The great Swedish monarch, Gustavus Adolphus, on the eve of the battle of Leutzen, in which he was killed, had left an unsigned proclamation contemplating colonization of the Swedes upon the Delaware in the legitimate sense. This was not actually put in operation until twelve years after his death, to wit: 1638; and then without the vigor that he designed to have infused into his grand scheme of colonization. The Swedes, however, settled upon the west bank of the Delaware over forty years before the Royal Charter to William Penn, and earnestly set to work to cultivate the soil, and in all their intercourse with the Indians acted upon essentially the same pacific principles which became world-renowned under the founder of Pennsylvania. This peaceful policy of the Swedes did not protect them from the more warlike Dutch in 1655, and these latter had to surrender to the more powerful representatives of the English crown in 1664.

Seventeen years later Charles II, in liquidation of a debt of £16,000 due the estate of Admiral Penn, conveyed to his son William the Province of

Pennsylvania. The name was given to it by the king, in honor of the admiral and against the consent of the grantee, then only known as a Quaker preacher. William Penn made two visits to this country of about two years each, and was then the actual Governor of the province. He undoubtedly intended to have permanently settled here, and in his will enjoined his heirs to do so. The remaining portion of the thirty-seven years that intervened between the granting of his patent and his death was spent in England. The province was generally ruled by Deputy Governors, appointed by him and subject to removal at his will.

William Penn found the proprietorship of Pennsylvania not by any means a bed of roses. On the death of Charles and the accession of that great friend of his father and of his own, the Duke of York, to the crown, his intimacy with that subsequently deposed monarch had nearly cost him the forfeiture of his province. Quaker preacher as he was, the zealous Protestantism of that age saw in his devoted attachment to the deposed Roman Catholic monarch, disloyalty to William and Mary and the Protestant succession. His province was seized upon by the crown, and for nearly two years he had to vindicate his loyalty before it was restored to him.

The expenses forced upon him by these contests at home and the administration here caused him to declare in one of his letters that Pennsylvania had cost him £30,000 beyond what he ever received in return. In fact, in a despondent mood, on the eve of an apoplectic attack, from which he never recovered, he contracted for £12,000 to convey to the crown the province, for which thirty-one years before he had paid £16,000. The magnanimity of the sovereign refused to enforce the contract against the widow and heirs of William Penn. Judged simply from a financial stand-point, the Pennsylvania Legislature and British Parliament did better for the Penn heirs than the retention of their proprietary rights would have secured them. Pennsylvania granted them £130,000 or about \$650,000, and allowed them to retain their manors, forty-four in number, in consideration of the relinquishment of their proprietary rights. And the British Parliament granted them an annuity of £4,000 or some \$20,000, which is even to this time regularly paid them. I doubt if an account current of our land department would show a much better exhibit for the Penn heirs.

One other fact connected with the Penn family deserves a passing notice, to wit: that Pennsylvania, during a period of some eight years, had a *de jure* female Governor. William Penn, by his will, vested all his proprietary rights in his wife Hannah, who became his sole executrix. Had she removed to Philadelphia, she would have been *de facto* Governor of the province. Remaining abroad she exercised her proprietary rights through her Deputy, Governor Keith. Several of her letters on public

affairs show her to have been a woman of the type of Queen Elizabeth. If she did not box his ears, she at least used the sharpest of language to communicate her commands.

The first and most serious controversy, in regard to the boundaries of the province was with Lord Baltimore. This included an entire degree of latitude—should the southern line commence at the commencement or end of the fortieth degree of north latitude? Had Lord Baltimore's claim been successful, then the city of Philadelphia and a corresponding strip would have been cut off the southern counties of the State. Had William Penn's claims been allowed, the city of Baltimore and about half of Maryland would have been in Pennsylvania. The result of this was the compromise line, since famous as Mason and Dixon's, for many years the boundary between the free and slave States.

At a later period the authorities of Virginia claimed a large portion of western Pennsylvania, including the site of the present city of Pittsburg. This claim was not ended until after the revolution and resulted in the extension of Mason and Dixon's line as our southern boundary. About the same time Connecticut claimed the extension of her chartered limits that would have cut off fully one-third the territory of the State. Blood was shed in the valley of Wyoming in asserting and defending these conflicting claims to State jurisdiction. This, too, shortly after the close of the revolution was settled in favor of Pennsylvania. No accurate census was ever taken of the province of Pennsylvania. The number of inhabitants at the date of the charter to Penn was about twenty-five hundred, mostly Swedes. At the time of William Penn's death, thirty-seven years thereafter, there were probably one hundred thousand in the province, and at the Declaration of Independence about three hundred and twenty-five thousand, and at the date of the first census, 1790, four hundred and twenty-four thousand.

PROVINCIAL FINANCES.

The early history of the colony shows a government conducted on the simplest and most economical principles. Other colonies ruled by Royal Governors paid large salaries from the royal exchequer were conducted with considerable pomp. William Penn's Quaker proclivities ignored all worldly pomp, and then he had no means to encourage extravagance. He was forced to be a frequent attendant at court at home, to protect from persecution his co-religionists and also the interests of his colony. This more than exhausted the income of his English estates, and, if his own letters are truthful, the receipts from the sale of lands in the colony were largely more than absorbed by the annual expenditures. Like many other very good men, I believe him to have been an indifferent financier. His letters show him to have been constantly in need of money, and that his

estates were heavily mortgaged. Thus situated he was forced to select cheap governors and all other officers to administer his provincial affairs. His governors are said to have received less than a thousand dollars a year from him, and had to rely upon the liberality—or frequently illiberality—of the provincial assembly. If the governors were kept on starving salaries, of course all below them could not be expected to fare any better.

Things were in this condition during the thirty-seven years that William Penn administered the colony. His mortgaged estates descended to his family thus heavily encumbered. The income derived from the quit rents and sales of land had to be sent to England to extinguish this indebtedness. The result of this condition forced upon all officials rigid economy. In private life Quaker simplicity and Quaker thrift accorded with these public examples. The rapid growth and wonderful prosperity of the colony were largely owing to the good examples set in public and private by its early founders. And, if their descendants of the present day should more closely imitate these virtues of their ancestors, public morality would be largely promoted and private happiness not be materially lessened.

The royal charter to William Penn, which sought to revive in the seventeenth and eighteenth centuries the rights and traditions of the feudal law in the time of the Norman conquest, was a sad mistake; and scarcely a day passed in the legislative assembly, when its ill effects did not crop out in some form or other. About the middle of the last century commenced that series of disturbances, known as the French and Indian wars, which continued for a period of nearly fifteen years to embroil the peaceful inhabitants of Pennsylvania.

The debt incurred in defending the province during that long period, in proportion to the wealth of the inhabitants, was quite equal to the national debt incurred in suppressing the rebellion to the wealth of the present day. To enable the colony to meet these enormous expenditures Franklin devised the expedient of a paper currency. Several sessions of the Assembly passed before even this could secure Executive approval. But still a tax must be raised to pay the interest and sink the debt. The entire taxable value of the property of the citizens was some six millions of dollars. The Penn family held in their manors, their farms, their houses and lots reserved from sale, the value of fully another million. The great body of unsurveyed wild land it was never proposed to tax. But the serfs and retainers of a feudal Lord had never dared to talk of taxing his estates. A fearful struggle of ten years arose between the provincial Assembly on the one side and the Penn family on the other. Two full volumes of Franklin's works are filled with his writings on behalf of the people. All his tact, his skill and his diplomacy were tasked to their utmost. The contest

ended, as all such contests must end in this age, when two hundred thousand are enlisted on the one side, and one family on the other.

The balance of the French and Indian war debt, and the expenditures of the State during the revolution of course tasked the utmost capacity of its financiers of that day. The thrift of Franklin and the skill of Morris carried the infant Commonwealth through the fiery ordeal. The Commonwealth when fully organized under the Constitution of 1790, still adhered to the frugal habits of its early founders. The following were the annual expenditures of the State, as appears by official reports: 1802, \$341, 446 12; 1809, \$547,950 49; 1820, \$440,801 55; 1829, \$799,099 10; 1839, \$1,621,119 84; 1850, \$4,566,300 00, and since that time something over \$5,800,000 per annum, of which nearly \$2,000,000 has been interest to pay the public debt. This public debt has been reduced for some years more rapidly than in my judgment wise statesmanship requires it to be. It is largely held by persons and estates that do not desire its principal to be paid. The assets in the sinking fund amounting to \$9,500,000 will not be due until 1891. If the present debt was paid off at the rate of one million a year until these sinking fund assets become due, the whole could then be extinguished. A reduction of taxation so as to meet necessary expenditures and one million of reduction is what wise statesmanship requires.

CONSTITUTIONS OF PENNSYLVANIA---COLONIAL AND STATE.

Charles II, of England, in March, 1681, by his charter to William Penn, vested in him, in accordance with the doctrines of the feudal law, all the rights, powers and so forth, which we now recognize as inherent in the citizen. In exact accordance with this theory, was William Penn's first grant called "concessions to purchasers of lands" in twenty sections, dated July 11, 1681. This was followed, April 11, 1682, by his frame of government in twenty-four sections, in the preamble to which he expressly disavows all authority over his colonists, except such as could be proved by the Christian Scriptures. His laws in forty sections followed while still in England, and upon his arrival upon the Delaware, at the first Assembly at Old Chester, all these were ratified, and in addition thereto, his great law in sixty-nine sections was enacted. These constituted not in form, but in substance the Colonial Constitution under which the province grew and flourished until the date of the American revolution. We presume that the members of the Constitutional Convention of 1872-3 had carefully

studied this Penn's Constitution, as both documents contain about in equal proportions constitutional principles and legislative enactments. This Constitution was modified in some of its details by William Penn in 1683-1696, and most of all on his second visit to the province in 1701, and by still more important unwritten amendments, after the manner of the English Constitution, wrested from the Penn family by the persistent demands of the Colonial legislative assemblies. The most important of these unwritten concessions was the right to pass laws organizing the judicial branch of government; to issue paper money, and above all the right to tax the proprietary estates to defray the public expense. This aggregate of Constitutional law, written and unwritten, was the inheritance of our ancestors for nearly a century; about equal in time to the four constitutions of the Commonwealth.

The first Convention to form a Constitution in our modern sense of that term, met in Philadelphia, July 15, 1776. Of that Convention, Benjamin Franklin, then in the seventy-first year of his age, but in the fullest enjoyment of his intellectual faculties, was the President; and tradition has always assigned to him the chief agency in its preparation. The classification since adopted in the National Constitution of 1787 into articles, these sub-divided into sections, now almost universally followed, had not then been devised. This Franklin Constitution was about one-third shorter than that of 1790; one-half shorter than that of 1837-8; and about one-fifth the length of 1872-3. I very much doubt if the political wisdom of these latter days has kept equal pace with the number of sections of these later charters of our liberties. The peculiarities of this Franklin Constitution were: Instead of a Governor, all executive powers were vested in a council of twelve; no Senate; all legislative powers were in a single Assembly, and a council of censors, elected every seven years, to see that all other departments confined themselves to their proper spheres.

The second Constitutional Convention assembled November 24, 1789, continued in session until the 26th of February, 1790, and then adjourned until August 9th, and finally proclaimed its Constitution adopted September 2, 1790. This Constitution was modeled in its arrangement and grant of powers after the national one, then recently adopted, and undoubtedly gave more satisfaction than any other our State has ever had. It was our fundamental law for forty-eight years, and an attempt made in 1825 to call a new convention was largely defeated.

The Convention of 1837-38 only attempted to amend the Constitution of 1790. It took from the Governor the appointment of county officers, and made all these elective by the people; inserted the word *white* to limit the elective franchise; and made the judicial department to hold office for ten and fifteen years, instead of for life, as under the Constitution of 1790.

Yet these moderate changes only secured their adoption by the people by a majority of a few votes over twelve hundred. This Constitution also provided a mode of amendment by the action of two succeeding Legislatures and adoption by a vote of the people. This, it was then supposed, would render all future conventions unnecessary. By this agency the judiciary was made elective by the people in 1850; the State, county and municipal authorities were forbidden to subscribe to the construction of internal improvements in 1857; and the soldiers in the field, in time of war, were guaranteed the right of suffrage in 1864. The people, not satisfied with this slow, piece-meal mode of amendment, provided for a new convention to amend the old, or to create a new constitution for the State. Hence came into existence the Convention of 1872-73, which sat for nearly a year, and has produced a new constitution more than equal in length to all the Colonial and State constitutions which preceded it. The people of the State have just adopted this new constitution by a vote unprecedented in her history, and I hope its administration may demonstrate it to be an instrument as much superior in its political guarantees as in length it surpasses its predecessors. The historian should rarely attempt to write of passing events; hence I shall not risk my reputation as prophet by attempting to tell you of its wise and multifarious provisions.

THE PENN MANORS IN PENNSYLVANIA.

The Royal Charter vested in William Penn and his heirs the absolute ownership of the soil of Pennsylvania. From 1681, the date of the charter, to July 4, 1776, the date of the Declaration of Independence, all titles had to be derived from the Penn family; and within the reserved manors since all titles have still to be traced to them.

The Surveyor General, under the Penns, had selected and surveyed off some forty-four manors for the more exclusive use of the proprietors. A list of these, as accurate as the Land Office can furnish, with their contents, compose the first table. Large portions of these manors had been disposed of before the Revolution, especially in Eastern Pennsylvania. How much remained unsold in 1776 I have no means of learning.

William Penn, by his will, had left to each of his children ten thousand acres of land in Pennsylvania, and at various times some of the family had assigned to them portions of land. These are the "Private Estates" referred to in the act of 1779, and are, as far as the Land Office is informed, covered by the second table.

The Legislature passed an act on the twenty-seventh of November, 1779, in consideration of one hundred and thirty thousand pounds sterling, (or six hundred and fifty thousand dollars,) vesting in the Commonwealth all the proprietary rights, under the Royal Charter; reserving, however, to the Penn heirs, their manors surveyed and returned prior to July 4, 1776, and their private estates—meaning, I presume, all property which had been severed from the general proprietary estate, and vested in any one or more members of the Penn family. The eighth and thirteenth sections are as follows:

“VIII. *Provided also, and be it enacted*, That all and every the private estates, lands and hereditaments, of any of the said proprietaries, whereof they are now possessed, or to which they are now entitled, in their private several right or capacity, by devise, purchase or descent; and likewise all the lands called and known by the name of the Proprietary Tenths or Manors, which were duly surveyed and returned into the Land Office, on or before the fourth day of July, in the year of our Lord one thousand seven hundred and seventy-six, together with the quit or other rents and arrearages of rents, reserved out of the said proprietary tenths or manors, or any part or parts thereof, which have been sold, be confirmed, ratified and established forever, according to such estate or estates therein, and under such limitations, uses and trust, as in and by the several and respective reservations, grants and conveyances thereof, are directed and appointed.

“XIII. *Be it further enacted*, That the sum of one hundred and thirty thousand pounds, sterling money of Great Britain, be paid out of the Treasury of this State, to the devisees and legatees of Thomas Penn and Richard Penn, late proprietaries of Pennsylvania, respectively, and to the widow and relict of the said Thomas Penn, in such proportions as shall hereafter by the Legislature be deemed equitable and just, upon a full investigation of their respective claims.”

So far as our information goes, we give such a designation of the county and neighborhood in which these manors lie as will enable our readers to form some idea of the location and value of these Penn estates:

LIST OF MANORS laid out by the Penn family and reserved by them by settlement of 1779.

NAME.	QUANTITIES.		LOCATION.	REMARKS.
Springettsburg	Acres.	Perches.	Philadelphia	The family name of Wm. Penn's first wife was Springett. His eldest son was also named Springett. This manor and some others were named to compliment his wife's family (and his son.
Springfield	1,840 .....	.....	Philadelphia	On the Schuylkill, near Phoenixville.
Gilberts	4,000 .....	.....	Philadelphia, (now Montgomery,)	Thos. Callowhill was one of the purchasers of 5,000 acres from Wm. Penn 22d March 1682.
Callowhill	4,095 .....	.....	Chester county	A street in Philadelphia also commemorates him. William Penn's second wife was a daughter of Thomas Callowhill.
Amorland of Bilton	2,850 .....	.....	Do.	Wm. Penn's daughter, Letitia, married William Aubrey.
Letitia Aubrey's	5,000 .....	.....	Do.	A township called Pennsbury probably designates the location of this manor.
William Penn	5,000 .....	.....	Do.	This name is probably a derivation from the Springett family.
Faggs	7,175 .....	.....	Do.	A township by this name, in northern part of Bucks county, indicates the location of this manor.
Springton	10,000 .....	.....	Bucks county	This manor was on the bank of the Delaware, above Bristol, and is said to have been, at one time, designed by William Penn to have been the site of his great city, afterwards changed to Philadelphia. He there built a family manston, in which he resided during his second visit to his Province.
Highland	7,750 .....	.....	Do.	A stream forming the boundary line between Wayne and Pike counties designates the location of this manor. This creek has, near its mouth, a succession of cataracts and falls, a distance of 150 feet in 1½ miles.
Richland	16,749 .....	.....	Do.	A township known as Ruscomb Manor, in Berks county, marks the location of this manor. In the north-western part of Berks county two townships, Upper and Lower Tulpehocken, designate the location of this manor.
Pennsbury	8,431 .....	.....	Lancaster county	The number of acres in this manor is not given. These five warrants were most likely issued to Richard Penn about the time of the Revolution, and probably contained about 5,000 acres.
Perktissey or Perkalse	11,462 .....	.....	Do.	This large body of land lay on both sides of the Conestoga creek. Two townships, one Manor and the other Conestoga, designate its location.
Wallenpaupack	12,150 .....	.....	Do.	This manor was situated near the line of Berks and Lebanon counties, on the Tulpehocken creek. Named from Charles Fells, who married a grand-daughter of Wm. Penn.
Ruscomb	10,000 .....	.....	Do.	A grand-daughter of Wm. Penn married Thomas Freyne.
Tulpehocken	7,510 .....	.....	Do.	Two townships in Lancaster county, East and West Hempfield, indicate the location of this manor.
Antolough	5 w'ts of R Penn.	.....	Do.	The creek by this name, in the western part of Schuylkill county, designates the location of this manor.
Conestoga	16,000 .....	.....	Do.	The borough of Carlisle is said to be located within what was this manor.
Charles Fells	10,000 .....	.....	Cumberland county	The number of acres in this manor is not given. The manor was a large one, including all of Cumberland and most of Straban townships, Adams county, containing probably not less than 15,000 acres.
Freame's	10,000 .....	.....	York county, (now Adams)	{ A part of Springettsburg.
Hempfield	2,816 .....	.....	Do.	{ These two manors contained a great body of magnificent land around the borough of York, upon the Codorus creek.
Little Swatara	5,000 .....	.....	Do.	This tremendous large manor, formerly in Northampton county, (now Pike,) and probably a portion in Wayne county, lies upon a stream of the same name.
Souther	7,557	78	Northampton county, (now Pike,)	This manor was undoubtedly designed to commemorate a country seat near London, formerly by name of Stoke Pogis, the residence of Lord Coke, which afterwards came into the Penn family.
Maske	(15,000) .....	.....	Northumberland county	This manor included that fine body of land at the junction of the North and West Branches of the Susquehanna, on which the borough of Sunbury is located.
Yorktown	421 .....	.....	Do.	
Springettsburg	64,520 .....	.....	Do.	
Lechawaxin	80,000 .....	.....	Do.	
Stoke	9,800 .....	.....	Do.	
Sunbury	20,000 .....	.....	Do.	
Amsterdam and Rotterdam	2,770 .....	.....	Do.	

LIST OF MANORS—Continued.

NAME.	QUANTITIES.		LOCATION.	REMARKS.
	Acres.	Perches.		
Pomfret.....	4,766	.....	Northumberland county.....	Thomas Penn, son of the proprietor, married a daughter of the Earl of Pomfret. This manor was named to compliment the Earl.
Muncy.....	1,802	141	Do.....(now Lycoming,)	A town by this name designates the location of manor. This whole neighborhood was originally settled by Quakers.
Dundee.....	3,529	.....	Do.....(now Bradford,)	
St. Davids.....	3,692	.....	Do.....	This was probably designed to compliment a famous Welch Quaker, Hugh David, who accompanied Wm. Penn to this country on his second visit, and who presented to Thomas Penn, in 1732, some verses tracing the Penn family as a branch of the Royal Tudors.
Penn Grove.....	4,545	.....	Do.....	
Kittanning.....	3,960	.....	Westmoreland co., (now Arms'g,)	The famous Indian town, Kittanning, now the county seat of Armstrong county, captured by Col. Armstrong, in 1756, from the Indians, is located upon this manor.
Denmark.....	4,861	.....	Do.....	This manor is situated on Bushey Run. The Pennsylvania railroad, by naming a station "Manor," designates its location. Col. Bouquet's battle was fought August, 1763, within this manor.
Penn's Lodge.....	5,568	.....	Do.....	In the southern part of the county Sewickley creek and township mark its location.
Pittsburgh.....	5,766	.....	Do.....(now Allegheny).....	The city of Pittsburg occupies mainly the site of this manor. This is now probably more valuable than any of the others. A recent assessment board has assessed its value at \$176,147,774.
Cherry Hill.....	1,202	40	Do.....(now Indiana).....	A township in the northern part of Indiana county by that name indicates the location of this manor.
Chest.....	1,123	113	Do.....(now Cambria).....	The location of this manor is designated by a township of the same name in the northern part of Cambria county.
Nottingham.....	1,035	80	Do.....(now Washington,)	In the north-east part of Washington county a township by same name marks its location.
Bedford Fort.....	2,810	80	Bedford county.....	Bedford, the county seat of Bedford county, is situated upon this manor; also the famous Bedford Springs.
Sinking Valley.....	9,056	.....	Do.....(now Blair).....	The location of this manor is indicated by a post office of same name in Blair county.
	421,015	82		

LIST OF LANDS, other than Proprietary Manors, owned by members of the Penn family.

NAME.	QUANTITIES.		LOCATION.
	Acres.	Perches.	
Safe Harbor.....	2,222	80	Wayne county—situated on the west side of the Delaware, at the mouth of Equinunk creek.
Damascus.....	4,380	30	Northumberland county, at Coshoctung.
William Penn, Jr.....	2,770	30	Wayne county, (formerly Northumberland county.)
The Meadows.....	5,214	139	do.....warrant 1833. Lechawaxin and Equinunk creeks. Re-surveyed for Peter Gaskill. Pat. 7th June, 1806.
The Mill-Seat.....	3,032	90	do.....(formerly Northumberland county.) East side of Moose Wt's on waters of Lechawaxin creek.
Duck's Harbor.....	999	155	do.....On head-waters of Little Equinunk creek, 5 miles from Delaware.
Do.....	510	25	do.....On head-branch of Lechawaxin.
Fox Harbor.....	1,649	23	do.....On east branch of Nescopeck path, near the line of Carbon and Luzerne counties.
Beaver Harbor.....	1,665½		do.....On Beaver pond, branch of Quacake creek, 100 perches west of the Tamaqua or L. Schuylkill.
Cowpasture.....	3,603		Schuylkill county, on the most westerly branch of the Tamaqua or L. Schuylkill.
Pleasant Garden.....	20,948	56	Wayne county, on Big Middle creek, a westerly branch of Lackawaxin creek.
Sandy Run.....	1,280	40	Wayne county, on east branch of Lackawaxin, called Sandy run, 10 miles from Delaware.
Terrapin Harbor.....	839½		On Terrapin creek, north side of Broad Mountain, on path from Gattenhutton to Wyoming, near line of Luzerne and Carbon.
Brewer's Den.....	312	48	Wayne county, on a branch of Equinunk creek.
Shoelocking.....	520		Wayne county, on west side of Delaware, at mouth of Popatunk.
Elk Forest.....	11,526		Wayne county, on waters of Lackawaxin and Big Middle creek.
.....	12,200		Berks county, between Ruscomb manor and Reading.
.....	12,549		Brecknock township, Berks and Lancaster counties.
.....	1,272		Dauphin county, on the Susquehanna and Paxton creek.
The Indian Landing.....	1,866		Susquehanna county, on the North-East Branch of Susquehanna.
Crooked Dale.....	1,026		Susquehanna county, on the North-East Branch of Susquehanna.
Job's Discovery.....	1,615		Lycum county, on West Branch river, at the mouth of Muncy creek.
Highland.....	2,571	40	Huntingdon county, on head-waters of Shaver's and Standing Stone creeks.
.....	763		Huntingdon county, south-east side of Tussey's Mountain and north-west side of Warrior Ridge.
.....	2,473½		Huntingdon county, in Warrior valley, north-west side of ridge and south-east side of Cove Mountain.
.....	1,487		Blair county, two miles above Frankstown.
.....	466	70	Huntingdon county, on head of Water street.
Lake Paupunaumung.....	215		Monroe county, in Hamilton township, (lake 190 pr. long.)
Vineyard.....	2,000		On Andenelia creek, sixty miles from Philadelphia.
Manors.....	88,937	276	
	421,015	82	
Total.....	510,012	358	

The passage of this act was undoubtedly the highest act of sovereignty ever exercised by any State Legislature. Our ancestors of 1776 were not timid men. During the revolution our State Legislature passed numerous acts forfeiting the estates of those whom they called tories or traitors. In later days we all remember what a howl was raised when Thaddeus Stevens and other earnest men asked Congress to confiscate the estates of armed rebels. But the tories had a far better excuse than our modern rebels. They said they only wanted to continue the old order of things. But our modern rebels overturned the existing order of things; rebelled against the mildest form of government ever known, and set up another in opposition thereto. Had Congress ordered them to be hanged and their estates confiscated, a thousand precedents would have justified it, and among others Pennsylvania in our revolutionary days.

In case of the Penn estates, the act was a generous one. John and Richard Penn had remained here during the Revolution, their sympathies being known to be with the mother country. They knew that plenty of precedents existed to warrant the confiscation of all their proprietary rights and estates. Hence they and the other members of the Penn family gladly accepted this tender by the Legislature. In fact we do not believe that any injustice was done the Penn heirs by this act of confiscation as some have called it. Each one can form his own idea of the value of the manors and lands reserved them in the foregoing schedules. If wisely managed they ought to have realized a million of dollars from them, and then they were paid in cash \$650,000. And the British Parliament by an act in 1790 in consideration of their losses in Pennsylvania and the eminent services of their ancestors, granted them an annuity of £4,000 sterling or \$20,000 of our money. This has been regularly paid them eighty-three years and amounts to \$1,660,000. Now, if Wm. Penn's letters were true, complaining that during his life time the care of his Province had cost him more than he had ever realized from it, then certainly his heirs made a capital bargain with our Commonwealth and the British Parliament.

William Penn originally received the grant of this province in consideration of £16,000 owed his father, Admiral Penn, for services and advances. And yet, thirty-one years thereafter, on the eve of his apoplectic attack, from which he never recovered, he contracted to release all his rights in consideration of £12,000 to be paid him by the crown. This contract was not enforced against his heirs, and certainly they fared five hundred times better by the Pennsylvania Legislature and the British Parliament. These Penn manors were intended to be, and I have no doubt were, the choicest lands in the province at that early day. What the improvements of a century, the growth of cities and towns, the opening of mines, the erecting of manufacturing establishments, the location of canals and railroads, may

have since done, is another question. When made, these Penn lands were believed to be the garden spots of the then province, now State of Pennsylvania.

The Penn family have always had—probably still have—an agency in Philadelphia for the management and sale of their lands. Your Harrisburg Land Office has only the outside lines of these manors. The subdivision of them into lots or farms can alone be ascertained by referring to the Penn surveys. I suggest that the Surveyor General be authorized by the Legislature to see if the records now in the possession of the Penn agents cannot be transferred to your Land Department for reference in all questions of title. These records will soon become an encumbrance to the Penns, and ought to be deposited where they might be accessible in all controversies in regard to titles within these manors. In one form or other, probably one-tenth the titles to real estate in the Commonwealth go back to the Penn records for their origin.

GOVERNORS—COLONIAL AND STATE.

List of Governors of colonies on the Delaware and of the Province and State of Pennsylvania, for 264 years.

DUTCH RULE ON THE DELAWARE.

The Dutch claim to have had possession of both banks of Delaware Bay and river, from Hudson's first visit in 1609, to their surrender to the English in 1664, and again from August, 1673, to November, 1674, when they regained possession. Their chief magistrates were:

Cornelius Jacobson Mey	from	1624	to	1625
William Van Hulst	"	1625	"	1626
Peter Minuet	"	1626	"	1632
David Pietersen De Vries	"	1632	"	1633
Wowter Van Twiller	"	1633	"	1638
Sir William Kieft	"	1638	"	1647
Peter Stuyvesant	"	1647	"	1664

During this last administration there were six deputies under Stuyvesant—part of the time sub-divided into city and company directors. The Dutch surrendered to the English September, 1664.

SWEDES ON WEST BANK OF THE DELAWARE.

Peter Minuet	Governor from	1638	to	1641
Peter Hollander	"	1641	"	1643

John Printz.....	Governor from.....	1643	to	1653
John Pappegoya.....	"....."	1653	"	1654
John Claude Rysingh.....	"....."	1654	"	1655

Swedes surrendered to Dutch, September, 1655.

ENGLISH RULE ON THE DELAWARE.

Col. Richard Nichols, Governor at New York, and Robert Needham, Deputy on the Delaware, from 1664 to 1667.

Col. Francis Lovelace, Governor at New York, and Capt. John Carr, Deputy on the Delaware, from 1667 to 1673.

Recaptured by the Dutch, August, 1673, and held to November, 1674, when the English again regained possession.

Anthony Clove, Governor, and Peter Alricks, Deputy, to November, 1674, under the Dutch.

Sir Edmund Andross, Governor at New York, and his Deputies, Edmund Cantwell, Commander on the Delaware from 1674 to 1676.

John Collier, Commander on the Delaware from 1676 to 1677.

Christopher Billop, Commander on the Delaware from 1677 to 1681.

PROPRIETARY RULE ON THE DELAWARE.

William Markham, Deputy from June, 1681, to October 24, 1682.

William Penn, Governor from October 24, 1682, to August 12, 1684.

Thomas Loyd, President of Council, from June, 1684, to December, 1686.

Five Commissioners appointed by Penn, from 1686 to 1688.

John Blackwell, Deputy Governor from 1688 to 1690.

Thomas Loyd, President of Council from 1690 to 1691.

Thomas Loyd, Deputy Governor from 1691 to 1693.

William Penn's "suspected intimacy with the deposed King James" caused William and Mary to forfeit his patent, and order Benjamin Fletcher Governor of New York, to assume for the Crown the Province of Pennsylvania. In August, 1694, however, being satisfied of the injustice done him, William Penn was reinstated in all his rights.

William Markham, Deputy Governor from 1695 to 1699.

William Penn, Governor from November, 1699, to November, 1701.

Andrew Hamilton, Deputy, from November, 1701, to April, 1703.

Edward Shippen, President of Council, from April, 1703, to February, 1704.

John Evans, Deputy, from February, 1704, to February, 1709.

Charles Gookin, Deputy, from February, 1709, to May, 1717.

Sir William Kieth, Deputy, from May, 1717, to July, 1726.

William Penn died July 30, 1718, and his wife Hanna as sole executive for the heirs, became vested with all proprietary rights, and ruled by her

deputies for eight years. John, Richard and Thomas Penn were proprietors from 1727 to 1746.

Patrick Gordon, Deputy Governor, from July, 1726, to August, 1736.

James Logan, President of the Council, from August, 1736, to August, 1738.

George Thomas, Deputy Governor, from August, 1738, to May, 1747.

Richard and Thomas Penn were proprietors from 1746 to 1771.

Anthony Palmer, President of Council, from 1746, to November, 1748.

James Hamilton, Deputy Governor, from November, 1748, to October, 1754.

Robert Hunter Morris, Deputy Governor, from October, 1754, to August, 1756.

William Denny, Deputy Governor, from August, 1756, to October, 1759.

James Hamilton, again Deputy Governor, from October, 1759, to November, 1763.

John Penn, Deputy Governor, from November, 1763 to 1771.

James Hamilton, President of Council, 1771.

Thomas and John Penn, proprietors from 1771 to 1776.

Richard Penn, Lieutenant Governor, from October, 1771, to August, 1773.

John Penn, Deputy Governor, from August, 1773, to July, 1776.

A committee of public safety, Benjamin Franklin, Chairman, voluntarily chosen in 1775, were *de facto* the government until the Constitution of 1776 was adopted, and an organization completed under it. John Penn continued to live here during the Revolution and until his death in 1795; his remains were interred in Christ church-yard, in Philadelphia, but were removed by his family afterward to England.

On November, 27, 1779, the Legislature vested the Penn proprietary interests in the Commonwealth, paying the family however, £130,000 on about \$650,000, and allowing them to retain their manors, forty-four in number, worth probably as much more, also their private estates.

The English Parliament in 1790, granted to the Penn family an annuity of £4,000 or \$20,000, in consideration of the services of William Penn and losses by his family, and this annuity is regularly paid up to this time, 1873. The Chancellor last year, on being interrogated saying that the government had no intention of suspending this payment.

CONSTITUTION OF 1776.

By this Constitution the Presidents of the Executive Council were Governors—

Thomas Wharton, President, March 5, 1777, to his death May 23, 1778.

George Bryan, Acting President, May 23, 1778, to December 1, 1778.

Joseph Reed, President, December 1, 1778, to October 8, 1781.

William Moore, President November 14, 1781, to October 8, 1782.

John Dickinson, President, November 7, 1782, to October 18, 1785.

Benjamin Franklin, President, October 18, 1785, to October 14, 1788.

Thomas Mifflin, President, November 5, 1788, to December 20, 1790.

GOVERNORS UNDER THE CONSTITUTION OF 1790.

Thomas Mifflin, three terms from December 20, 1790 to December 17, 1799.

1790. First election, Thomas Mifflin, 27,725, Arthur St. Clair, 2,802.

1793. Second election, Thomas Mifflin, 18,590, F. A. Muhlenberg, 10,706.

1796. Third election, Thomas Mifflin, 30,029, F. A. Muhlenberg, 10,011.

Thomas M'Kean, three terms, December 17, 1799, to December 20, 1808.

1799. First election, Thomas M'Kean, Democrat, 38,036, James Ross, Federal, 32,641.

1802. Second election, Thomas M'Kean, Democrat, 47,879, James Ross, Federal, 17,037.

1805. Third election, Thomas M'Kean, Independent Democrat, 43,644, Simon Snyder, Democrat, 38,878.

Simon Snyder, three terms, December 20, 1808, to December 11, 1817.

1808. Simon Snyder, Democrat, 67,975, James Ross, Federal, 39,575, John Spayd, 4,006.

1811. Simon Snyder, Democrat, 52,319, Wm. Tilghman, Federal, 5,248.

1814. Simon Snyder, Democrat, 51,099, Isaac Wayne, Federal, 29,566, G. Littimore, 910.

Wm. Findlay, one term, December 17, 1817, to December 19, 1820.

1817. Wm. Findlay, Democrat, 66,331, Joseph Hiester, 59,272.

Joseph Hiester, one term, December 19, 1820, to December 16, 1823.

1820. Joseph Hiester, Federal, 67,905, Wm. Findlay, Democrat, 66,300.

John Andrew Shultz, two terms, December 16, 1823, to December 16, 1829.

1823. John Andrew Shultz, Democrat, 89,928, Andrew Gregg, Federal, 64,211.

1826. John Andrew Shultz, Democrat, 72,710, John Sergeant, Federal 2,349.

George Wolf, two terms, December 16, 1829, to December 15, 1835.

1829. George Wolf, Democrat, 78,219, Joseph Ritner, Anti-Mason, 61,766.

1832. Geo. Wolf, Democrat, 91,335, Joseph Ritner, Anti-Mason, 88,165.

Joseph Ritner, one term, December 15, 1835, to January 15, 1839.

1835. Joseph Ritner, Anti-Mason, 94,023, George Wolf, Democrat, 65,804, Henry A. Muhlenberg, 40,586.

GOVERNORS UNDER THE CONSTITUTION OF 1838.

David Rittenhouse Porter, two terms, January 15, 1839, to January 21, 1845.

1838. David Rittenhouse Porter, Democrat, 127,821, Joseph Ritner, Anti-Mason, 122,325.

1841. David Rittenhouse Porter, Democrat, 136,504, John Banks, Whig, 113,473, and F. J. Lemoyne, Abolitionist, 763.

Francis Rahn Shunk, twice elected, January 21, 1845, to July 9, 1848. Governor Shunk resigned July 9, 1848, and died shortly thereafter.

1844. F. R. Shunk, Democrat, 160,322, Joseph Markle, Whig, 156,040, and F. J. Lemoyne, Abolitionist, 2,566.

1847. F. R. Shunk, Democrat, 146,081, James Irwin, Whig, 128,148, E. C. Reigart, Native American, 11,247, and F. J. Lemoyne, Abolitionist, 1,861.

William Freame Johnston, July 9, 1848, to January 20, 1852.

1848. William F. Johnston, Whig, 168,522, Morris Longstreth, Democrat, 168,225.

William Bigler, one term, January 20, 1852 to January 16, 1855.

1851. William Bigler, Democrat, 186,489, W. F. Johnston, Whig, 178,034 and Kimber Cleaver, Native American, 1,859.

James Pollock, one term, January 16, 1855 to January 19, 1858.

1854. James Pollock, Whig, 203,822, William Bigler, Democrat, 166,191, and B. Rush Bradford, Native American, 2,194.

William Fisher Packer, January 19, 1858, to January 15, 1861.

1857. William F. Packer, Democrat, 188,846, David Wilmot, Free Soil, 146,149, Isaac Hazlehurst, Native American, 28,168.

Andrew Gregg Curtin, two terms, January 15, 1861 to January 15, 1867.

1861. A. G. Curtin, Republican, 262,346, Henry D. Foster, Democrat, 230,239.

1863. A. G. Curtin, Republican, 269,506, G. W. Woodward, Democrat, 254,171.

John White Geary, two terms, January 15, 1867, to January 21, 1873.

1866. J. W. Geary, Republican, 307,274, Heister Clymer, Democrat, 290,096.

1869. J. W. Geary, Republican, 290,552, Asa Packer, Democrat, 285,986.

John F. Hartranft, January 21, 1873, to January, 1876.

1873. J. F. Hartranft, Republican, 353,387, Charles R. Buckalew, Democrat, 317,760.

AN OLD TITLE FROM PROPRIETARY DAYS.

The investigation of the title to the site for the new post-office in Philadelphia, has brought to light quite an array of old parchments. Some of them are written in the highest style of the old English script, with elaborately flourished initial letters. These documents, in the original, were forwarded to the Treasury Department a few weeks since, and have been carefully examined in the office of the Attorney General. A complete brief of the title from William Penn, the first proprietor of the province, down to the present time, has been prepared and presents a curious and interesting chain of ownership through nearly two centuries. The earliest document is an indenture, dated May 4, 1682, between William Penn, of Worminghurst, Sussex county, England, to John Simcock, of Riddle, in the county of Palitina, which stipulates for the sale of two thousand eight hundred and seventy-five acres within the Province of Pennsylvania, at £750, 10s, or about \$3,650 present money. As Penn did not sail from Deal, in England, until the latter part of August, 1682, this indenture was agreed upon before his departure. The lot, therefore, selected for the site of the new post-office, or rather a portion of the lot, must have come into the possession of Simcock as his share of the property in the proposed city, as agreed with the first purchasers of land in the Province. For every certain number of acres of land purchased, the purchaser was to have a lot in the "great city" to be laid out. Among the other interesting old title papers are a patent to John Biddle, dated in 1763, and a deed dated January, 1806, "from the Commonwealth of Pennsylvania to the trustees of the University of Pennsylvania, for the house and lots in the city of Philadelphia which were intended for the accommodation of the President of the United States." The third session of the First Congress, under the Constitution of 1788, met on December 6, 1790, at Philadelphia, and continued its sessions there until the end of the first session of the Sixth Congress, or during the summer of 1800. The title to the new post office property is entirely satisfactory, and nearly the entire ground has been transferred and paid for.

A few small lots, about one-third the entire amount, will yet have to be acquired, which will be done by condemnation. A half million has already been paid by the government. The total amount to be acquired by purchase is \$925,333 33.

JUNE, 1873.

A NEW GEOLOGICAL SURVEY OF PENNSYLVANIA.

A bill to authorize a new geological survey of our State was reported from a committee in the House of Representatives, at the session of 1873, too late, however, to have it maturely considered, but as the same matter is likely to come before the Legislature of 1874, I will briefly state the grounds upon which its friends urge it. Our State undoubtedly has ten-fold more interest in the full development of its mineral resources than any other State of the Union. The investments in mining and manufacturing in Pennsylvania are about equal to that of all the other States. Some of the other States, however, preceded Pennsylvania in their geological surveys. Massachusetts commenced her survey about forty years since and published the final results in two large volumes in 1841, and also about the same time reports in three volumes upon the fishes, birds, reptiles, quadrupeds, &c. New York followed with a much more elaborate report, in nineteen volumes, published at various times from 1841 to 1852. These include geology in four volumes, zoology in five volumes, paleontology in two volumes, botany in two volumes, mineralogy in one volume and agriculture in five volumes.

The Legislature of our State, in 1836, authorized a geological survey, but the financial embarrassment, arising out of the suspension of specie payment in 1837, limited the appropriations very greatly and the results when collected, were not finally published until 1858. This survey, under all the unfavorable circumstances, was a very able one and is undoubtedly the most valuable contribution to geological science ever made from this country. It was published in Scotland, under the supervision of Prof. Henry D. Rogers, its author, who had become professor of geology in Edinburg University. Prof. Rogers made one unfortunate mistake, which has greatly lessened its value to the general reader. The authors of the New York report had adopted local names to designate her geological formations. This was not very scientific but adapted to popular comprehension. Prof. Rogers undertook to construct an entirely new nomenclature for the geological formations of our State. His brother William was State geologist of Virginia, and his survey was to have followed, and adopted the same nomenclature, more scientific as they claimed, than the European nomenclature and applicable to all countries, which the New York one was not. But the report of the Virginia survey has never been published and the European geologists have not seen fit to change their no-

nomenclature. Hence no American geologist has followed our Pennsylvania nomenclature. The consequence has been that Prof. Rogers's volumes are, to a great extent, a dead language to the general reader. So valuable are his facts that scientific men have been to the pains to master his nomenclature; but no other geologists, American or European, have adopted his new classification. It is now evident the proposed change has been a sad failure, and renders it indispensable to have a new survey, to be published in terms familiar to the scientific world and also within the comprehension of the mass of general readers.

Within the last twelve years nearly all the Western States have undertaken such surveys. Illinois and Tennessee have published theirs. The States of Ohio, Indiana, Michigan, Kentucky, Missouri and nearly all the Western States, even on the Pacific slope, have such surveys in process. Under the auspices of the United States the most of the new Territories have had geological surveys published. Is it not therefore time Pennsylvania should have an exhibition of her great resources?

The former survey was greatly restricted in consequence of the limited appropriations. Eminent engineers in employ of coal, iron and oil companies have carefully investigated particular neighborhoods, and their surveys have been published since the former survey. The surface of the oil regions of the north-western part of the State have been perforated in hundreds—aye thousands of places to great depths. The translation of our former survey into the language of common life, the revision and connection of all local surveys, the examination of all undetermined problems, the arrangement, classification and publication of the whole, will, if ably performed, be the most magnificent contribution to science our country has ever made. These are some of the reasons why a large number of intelligent and far-seeing citizens of Pennsylvania think the proposed survey should be authorized in a style worthy of the wealth and character of the State.

THE CAPITALS OF PENNSYLVANIA.

1. Old Chester, below Philadelphia, is undoubtedly to be recognized as the first capital of our State. There, William Penn, in December, 1682, met the first Legislative Assembly of the Province, and there and then had ratified "his concessions to purchasers in twenty sections," "his Frame of Government, in twenty-four sections," "his laws agreed upon in England, in forty sections"—all these had been proclaimed in England, and were now ratified; and also for the first time his "great law in sixty-nine sections."

These fundamental enactments contained within themselves a Constitution for the Province—a civil and criminal code, under which it was governed for nearly a century, and yet, such was the simplicity of that age, the whole of these enactments, including the opening and closing of the session, were completed within four days. With this exception, however, Philadelphia was the capital of the State during the Proprietary Government, and up to September, 1777, when upon the appearance of the British army under General Howe, all the departments of the State government were removed to Lancaster, where they remained until the withdrawal of the British army in the following June, enabled them to return. That city remained the State capital until, by resolution, the Legislature in April, 1799, required all the departments to remove to Lancaster before the opening of the Legislature in December of that year.

About that period an earnest agitation had been kept up in regard to the permanent location of the National capital—the contest being between Columbia, Middletown and Harrisburg, on the banks of the Susquehanna, and the present site of Washington, on the banks of the Potomac. The more southern location was carried, not upon its merits, but by connecting it with a side issue.

The location of the State capital at Lancaster does not appear to have been regarded at any time as a permanent one. During several sessions of the Legislature, bills were pending for its permanent location. The points urged were Philadelphia, Carlisle, Harrisburg and Northumberland. Finally, in February, 1810, Harrisburg was fixed upon as the place, and October, 1812, as the time when the departments should be removed there. The Legislature met in the old Court House, Harrisburg, the House of Representatives on the first floor and the Senate up stairs. The two wings of the Capitol, occupied by the Land Department and Auditor General,

were first built. The corner-stone of the Capitol proper was laid by Governor Findley on the 31st of May, 1819, and the halls were first occupied for legislative purposes on January 2, 1822. The original plan of the Capitol, as is shown in plates of it, contemplated the connection of the main building and the wings by a range of one-story rooms for transcribing clerks and committees. These however, have never been built, and their addition now would be a questionable policy. A considerably greater amount of office space could be secured by the extension of the wings to correspond with the library extension of the central building. If this were done and a corresponding front were presented to the north-eastern portion of the public square, the traveling public from the railroad cars would obtain a much more favorable impression of our public buildings. When the capital was located here the river front was the only one the public could see; now, however, the traveling public pass entirely in what was formerly the rear. But if this was arranged in the manner proposed, the public buildings would present a double front. This change also, would not be costly, and might serve the State for a century to come. Our public buildings are indeed plain, but so exceedingly substantial and serviceable, that thousands would regret to see them changed for marble palaces, to cost from five to ten millions of dollars.

The cost of the two wings containing the executive offices has been.....	\$106,000 00
The capitol proper.....	135,000 00
The arsenal.....	12,000 00
Public grounds, iron fence, &c., about	30,000 00
	<hr/>
	283,000 00
	<hr/>

The extension of the central building for committee and library rooms, about \$88,000; gallery, shelving and inside furniture, \$25,000. A corresponding extension of the two wings, which would double the amount of accommodation for public offices, could be made for probably \$150,000, and then Pennsylvania, at an expenditure of \$682,000, would have Capitol buildings for all practical purposes, fully equal to some other States that have expended not less than from five to six millions. The entire area included within the public square is about sixteen acres. John Harris, the founder of Harrisburg, donated four acres and twenty-one perches of the eastern end, on which the arsenal stands; the ten acres on which the Capitol stands was purchased of Wm. M'Clay for \$100 per acre, \$1,000; about one acre intervening between the Harris and M'Clay lots, cost \$1,100, and the recent addition of one acre, at the corner of Fourth and Walnut streets has been appraised at \$49,700. The Superintendent of Public Grounds

spends several thousand dollars annually in keeping the grounds and buildings in repair, not included in the above statement. The Executive mansion, on the river bank, was purchased about 1862, for \$40,000. One-half of this was contributed by the city or citizens of Harrisburg. The extension made since has cost \$44,000, so that the whole cost to the State—of Capitol, public grounds and Executive mansion is about as follows, viz :

The two wings.....	\$106,000 00
Capitol proper.....	135,000 00
Arsenal, grading, fencing, &c.....	42,000 00
Library extension.....	88,000 00
Do....furnishing.....	25,000 00
Ground, including last purchase.....	52,000 00
Executive mansion.....	84,000 00
	<hr/>
	532,000 00
Proposed extension.....	150,000 00
	<hr/>
	682,000 00
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JUNE, 1873.

REVENUE OF THE COMMONWEALTH.

CLASSIFIED STATEMENT, *showing how much of the revenue of the year ending November 30, 1872, was collected from particular industries of State.*

Auction commissions.....	\$26,273 52	
Auction duties.....	10,430 45	
	<hr/>	\$36,703 97
Tax on bank dividends.....	3,048 85	
Tax on bank stocks.....	265,053 17	
	<hr/>	268,102 02
Tax on corporation stocks, one-half mill on each one per cent. dividend. (4th and 5th sections, act of May 1, 1868.)		
Bridges.....	\$14,083 46	
Turnpikes.....	5,989 63	
	<hr/>	20,073 09
Coal companies.....	128,192 83	
Coal and iron companies.....	34,906 85	
Coal and mining companies.....	3,049 71	
	<hr/>	166,149 39

City passenger railway companies.....	\$35,628 40
Gas and water companies.....	19,714 73
Improvement companies.....	11,459 13
Transportation companies.....	43,428 85
Insurance (domestic companies).....	66,102 08
Iron.....do.....	44,694 03
Manufacturing.....do.....	31,270 78
Oil.....do.....	51,003 18
Railroad.....do.....	767,208 16
Telegraph.....do.....	4,303 50
Miscellaneous.....	17,837 43
	<hr/>
	1,308,025 25
	<hr/>

TAX ON PERSONAL PROPERTY.

Old three mill tax repealed as to real estate. Repealed as to horses, mares, geldings, mules and cattle, by act of 21st March, 1873..... \$561,316 12

TAX ON BONDHOLDERS.

Five per cent. to be retained by Treasurers for the State. [Sec. 11, act of May 1, 1868.] Changed from bondholders to corporation, by act of March 21, 1873.

County, city and borough.....	102,464 21
Coal and iron companies.....	59,151 72
Canal companies.....	29,678 77
City passenger railways.....	5,314 75
Gas and water....companies.....	1,219 75
Railroad.....do.....	291,838 55
Manufacturing.....do.....	1,932 47
Miscellaneous.....	807 06
	<hr/>
	492,407 28
	<hr/>

Tax, 3 per cent. on net earnings or income. [6th sec., act of May 1, 1868.] Repealed as to manufacturing companies by act of March 21, 1873.

Coal and iron companies.....	\$52,008 65
Banks.....	16,956 64
Bridges and turnpikes.....	11,158 52
City passenger railways.....	33,191 25
Express and transportation companies.....	22,499 32

Gas and water companies.....	\$15,815 78
Improvement companies.....	6,502 27
Insurance and trust companies.....	50,287 51
Iron companies.....	45,937 57
Manufacturing companies.....	19,091 87
Oil companies.....	39,479 75
Private banks and bankers.....	26,810 15
Telegraphs.....	2,261 00
Miscellaneous.....	6,048 52

348,048 80

Tax of $\frac{3}{4}$ of 1 per cent. on gross receipts of transportation.
[Sec. 8, act of May 1, 1868.] Repealed by act of March 21,
1873.

Canal companies.....	\$5,691 20
Railroads.....	450,156 32
Notaries public.....	1,683 67

457,531 19

Tax on enrolment of laws. [1st, 2d and 3d sections of act
of May 1, 1868.]..... \$30,080 00

Tax on tonnage. 1st class, 2 cents; 2d class, 3 cents; 3d
class, 5 cents per ton. [7th section, act of May 1, 1868.]

Canals.....	26,435 94
Railroads.....	476,439 40

502,875 34

Tax on anthracite coal, 4 cents per ton; these companies
being miners and transporters. [9th section, act of May 1,
1868.]

Delaware and Hudson canal company.....	\$91,480 12
Railroads.....	207,874 12

299,354 24

Tax on writs, wills, deeds, &c.....	\$119,380 32
Tax on certain offices.....	20,770 56
Collateral inheritance tax.....	354,819 98
Tavern licenses.....	346,116 70

Retailers' licenses.....	\$424,941 83
Theatre, circus and menagerie licenses.....	3,020 45
Billiard room, bowling saloon and ten-pin alley licenses.....	7,064 59
Eating house, beer house and restaurant licenses.....	42,316 81
Pedlers' licenses.....	2,679 61
Brokers' licenses.....	5,335 75
Patent medicine licenses.....	1,112 00
Distillery and brewery licenses.....	5,821 45
Millers' tax.....	641 16
Foreign insurance companies, 3 per cent. on premiums and licenses, [act 11th April, 1868].....	351,396 08
Premium on charters, $\frac{1}{4}$ of 1 per cent. on capital, [section 15 of act of May 1, 1868].....	101,584 71

FINANCE AND TAXATION.

COMMONWEALTH OF PENNSYLVANIA, }
BUREAU OF STATISTICS, }
HARRISBURG, August 24, 1873. }

Hon. M. T. WILLIAMSON,

Member of the Tennessee Legislature:

DEAR SIR:—Col. Quay, Secretary of the Commonwealth, has referred to my department your letter and interrogatories of July 15, in regard to the finances and taxation of our State. Before directly answering these, a brief preliminary explanation may be required to enable a stranger to understand my answers.

Pennsylvania is peculiar in her system of supporting her State government. This may in general be stated to be to collect a license tax from all dealers, and in latter days a tax upon corporations to the amount necessary to support the State government. Real and personal property, on the contrary, pays the taxes assessed by the counties, cities and so forth, for local purposes. From the origin of the State government under the Constitution of 1790, for forty years the expenses of the State were from \$300,000 to \$500,000 annually. We then incurred a heavy State debt for internal improvements reaching \$42,000,000. In 1844 we imposed what was called the three mill tax upon real and personal estate, which paid somewhere about \$1,800,000 annually into the State Treasury. But corporate wealth having become very great in this State, the Legislature in

1866-7, repealed all State taxes upon real estate, leaving her to derive about half a million annually from personal property. Her annual revenue from corporations, licenses, &c., have reached five millions and a half. The last Legislature repealed some of the most burthensome of these corporate taxes, probably to the extent of \$700,000 annually.

The local taxation upon real and personal estate, (probably nine-tenths upon real estate,) is very large. I have no returns to show the aggregate, but would estimate it not below \$35,000,000.

A commission under the authority of the New York Legislature, has recommended that State to adopt our Pennsylvania system. It is probable corporate wealth in Tennessee could not bear so large a share of taxation as our banks, railroads and manufacturing corporations do.

To your first interrogatory I answer: The aggregate assessed valuation of our real estate is one billion eighty-seven millions seven hundred and ninety-three thousand eight hundred and forty-four dollars (\$1,087,793,844.) This I estimate at one-third the cash value of our real estate, the true value at \$3,300,000,000.

To your second interrogatory, I answer: The aggregate assessed value of our personal property is eighty-five millions, five hundred and ninety-nine thousand, four hundred and twenty-nine dollars, (\$85,599,429 00.) This in its largest sense, I do not believe to be one-tenth the personal property of our State. Still so large an item of that, our corporate wealth, being taxed in another form, I cannot say what this item really should be—probably five hundred millions would be a low estimate.

To your third interrogatory, I reply: Our real estate is valued every third year—the intervening years' changes in ownership are noted and new buildings valued.

To the fourth interrogatory, I reply: We had a State Board of Equalization, of one member from each judicial district, that met every three years, from 1844 to 1864, when the State tax on real estate was repealed and the Board of Equalization ceased.

To the fifth interrogatory, I answer: The aggregate assessed value of farms and town and city lots is not given separately in our returns, as they are in some other States. I can only give the value per acre by dividing the number of acres by the aggregate assessed value of the whole, which would give an average of \$39 per acre, assessed value—or if my estimate is right, \$117 per acre, cash value.

To the sixth interrogatory, I answer: We have no taxation, for State purposes, on real estate—personal property is taxed three mills upon its assessed valuation.

The seventh, eighth and ninth interrogatories I classify together and answer: We collected last year—

From corporations of all kinds.....	\$4, 027, 740 20
Collateral inheritance tax.....	355, 000 00
Licenses to merchants, liquor dealers, &c.....	838, 000 00
Certain public offices.....	140, 000 00
Sales of public works, lands, &c.....	600, 000 00
Personal estate.....	560, 000 00
	<hr/>
	6, 520, 740 20
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Of this, banks paid \$268,102 02; railroads, \$2,318,807 48; insurance and other corporations, \$1,023,352 54; interest from railroad companies, \$547,500 00, and miscellaneous sources, about \$1,900,000 00. In our State these taxes are all charged upon the corporations, at least the treasurers, cashiers, &c., are held responsible for paying it over to the State Treasurer, consequently its collection costs very little, equivalent to what you call listing the tax.

The tenth, eleventh and twelfth interrogatories, I classify and answer together: Our taxation of merchants is based on the business they do. They are divided into, say fourteen classes, paying from \$1,000, the highest, to \$7, the lowest—liquor dealers paying fifty per cent. increase. We have no averages, such as your twelfth interrogatory refers to.

To the thirteenth interrogatory I answer: The county pays the jurors generally two dollars per day. In civil cases, a jury fee of four dollars is charged among the costs in each case tried by a jury, but does not meet one-tenth of the cost of jurors to the county.

To the fourteenth interrogatory I answer: The costs of criminal cases are paid by the county, not by the State. In cases below felony the jury may impose the costs on the defendant, the prosecutor or the county. Even when the defendant is acquitted he may be made to pay the costs. This, however, is only done as a general thing when the jury believe him guilty, but some technical reason causes them to acquit him.

The foregoing, I believe, answers substantially your interrogatories. When the replies you obtain from the other States are printed, I shall be obliged to you for a copy.

I remain with great respect,

THOS. J. BIGHAM,

Commissioner.

WEALTH AND ANNUAL PRODUCTIONS OF PENNSYLVANIA.

I am not aware of any attempt having been made in tabular form, to exhibit the wealth and annual productions of our grand old State. Our people have been generally so well satisfied with their possessions, that less than any other State have they troubled themselves to collect the statistics to show its immense aggregate value. We have had to grope around, and from fragments gathered here and there, endeavored to construct a magnificent whole. We have not even the advantage which Cuvier and other eminent geologists possess. Show them a bone and they undertake to tell you the size and habits of extinct animals. But our agricultural, mining, manufacturing and commercial wealth is so various and many-sided, that the exhibition of a specimen brick will not enable us to tell the size, symmetry and magnificence of our productions.

We have no doubt we shall be criticized from both stand-points. Many who have never seriously thought of the extent and variety of our wealth, will set down our statements as vastly exaggerated. A smaller number will probably say we have entirely underestimated the resources of our State. We have endeavored in this first annual report to follow the best information we could collect from various and sometimes conflicting reports, most frequently estimates. We have no legal authority to compel answers, and have therefore to be thankful for the information voluntarily vouchsafed us. In the future, when the Bureau has been more firmly established and legislation as we hope granted us, we may rectify the errors of childhood. With these explanations we proceed to a detailed statement of our wealth, giving generally the sources of our information or estimates

FIRST—ASSESSED VALUATION, \$1,171,968,977—TRUE, \$3,475,831,851.

The first and really most important of these are our annual assessments of real and personal property, by the assessors of each election district in the State. In two other papers found in another part of this book, will be found the official assessments by counties of 1851, 1863 and 1872. And in the last one a column containing, what in my judgment would be the multiplier to bring the assessed to the true value of the property of the State. While it is true that the assessed in the whole State, gives us about one-third of the cash value of all our property, yet in detail the proportions vary tremendously. One county, the third in the State in population, is

the twenty-second in assessed value. We have placed its multiplier at *fourteen*, that is its assessed as one fourteenth of its cash value. Several other counties are very nearly up to the cash value. Suffice it to say, the cash value of real and personal property we have estimated at *three billions four hundred and seventy-five millions eight hundred and thirty-one thousand eight hundred and fifty-one dollars*.

SECOND—NATIONAL BANKS.

Pennsylvania 155 banks.....	\$89,470,661 85
Philadelphia ...29..do.....	83,152,770 25
Pittsburg.....16..do.....	30,290,300 02
	<hr/>
	202,913,732 12
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STATE BANKS—AUDITOR GENERAL'S REPORT.

Report, 1872.....	\$32,218,177 85
Increase 1873, same as 1872.....	11,037,558 73
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	\$43,255,736 58
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REPORTS TO THIS BUREAU AND ESTIMATES.

Saving funds.....	\$18,540,666 48
Not returned (estimated).....	18,540,666 48
Building and loan associations.....	25,000,000 00
Private banks and bankers (estimated),	125,000,000 00
	<hr/>
	\$187,081,332 96
	<hr/>
	433,250,801 66
	<hr/>

The national banking capital of the State we have taken from the report of the controller of the currency, at the close of 1872, only; instead of the chartered capital, we have taken what he classifies as the entire resources of the banks.

The State banks we have taken from the report of the Auditor General at the close of 1872, and have added the same increase for 1873 that was made in 1872. This also includes their entire resources.

Five saving funds not reporting to the Auditor General,

reported to us their aggregate resources.....	\$18,540,666 48
We know a dozen not reported and estimate them.....	18,540,666 48
Building and loan associations chartered by courts make	
no returns—we think they hold mortgages.....	25,000,000 00
Private banks and bankers we estimate at.....	125,000,000 00
	<hr/>

A paper in another part of this report gives them in detail.

THIRD—RAILROADS.

Roads controlled by the Pennsylvania railroad.....	\$140,837,262 00
Roads controlled by the Reading railroad.....	66,995,110 56
Independent railroads.....	64,139,168 00
Passenger railroads.....	8,131,807 04
Telegraph companies.....	5,659,167 38
Canal companies.....	28,151,219 62
Coal lands by mining companies.....	80,000,000 00
	<hr/>
	393,913,734 60
	<hr/>

Railroads, canals, telegraphs, &c., we have taken from the Auditor General's report of 1872. We have, however, classified them in a manner never before attempted in Pennsylvania, to wit: tabularizing the subordinate under the head of the controlling main lines. The details are shown in a separate paper in this volume.

FOURTH—CORPORATIONS PAYING TAX ON CORPORATION STOCKS NOT INCLUDED IN ABOVE.

Foreign insurance companies.....	\$11,750,000 00
Domestic...do.....do.....	2,200,000 00
Manufacturing corporations.....	8,500,000 00
Oil companies.....	1,700,000 00
Gas and water companies.....	700,000 00
Express companies.....	1,450,000 00
	<hr/>
	26,300,000 00
	<hr/>
Wholesale merchants.....	\$200,000,000 00
Retail.....do.....	100,000,000 00
Hotels, wholesale and retail liquor dealers.....	100,000,000 00
	<hr/>
	426,300,000 00
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We have deduced from the taxes paid by corporations into the State Treasury the probable amount of capital represented by them. We believe it largely below the true amount engaged in these various branches.

We have also given estimates for wholesale and retail merchants in the State; also hotels and wholesale and retail liquor dealers.

FIFTH—AGRICULTURE.

Value of implements and machinery	\$35,658,196 00
Farm productions.....	183,946,027 00
Amounts reported in kind, not in value, estimated.....	125,000,000 00

Farm wages paid.....	\$23,181,944 00
Value of orchards.....	4,208,094 00
market gardens.....	1,860,016 00
forest products.....	2,670,340 00
household manufactures.....	1,503,754 00
animals for slaughter.....	28,402,903 00
live stock.....	115,647,075 00
	<hr/>
	522,078,349 00
Manufactures of all kinds, as per census report and forty per cent. added.....	997,050,521 60
	<hr/>
	1,519,128,870 60
	<hr/>

No. 5 is taken from the census reports of 1870. This is undoubtedly the most detailed and elaborate statement of the wealth of Pennsylvania, heretofore published. In the products of manufacturing industry, by counties, (see table) we have added forty per cent. for omissions and increase since 1870.

The products in kind and not in value embraces, in bushels, wheat, rye, barley, oats, Indian corn, peas, beans, potatoes, &c.; hay in tons; butter, cheese, hops, tobacco, wool, &c., in pounds; horses, oxen and cattle, by number. My estimate of \$125,000,000 00 in value is moderate for all these.

SIXTH—COAL AND OIL.

Antracite.....	\$85,181,583 00
Bituminous.....	24,913,272 00
Oil.....	19,616,000 00
	<hr/>
	129,710,855 00
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The mineral wealth of Pennsylvania it is not possible to calculate. The anthracite coal beds are of limited extent, but of immense capacity. The semi-bituminous coal appears to run across the central counties of the State. The bituminous covers fully half of western Pennsylvania. The splint or cannel-coal abounds along the Beaver and Shenango valleys. The magnitude of these coal deposits render it useless to calculate, at present, their prospective value; only the coal seams along the line of our great avenues to market can be reduced to a money standard.

The iron ores abound in half the counties of the State. The production of iron manufacture in 1870, as per census returns, was \$127,000,000; and forty per cent. as increase since, would make the product of 1873, \$177,-

000,000. The product of steel, copper, zinc and nickel, new industries recently demonstrated to be a success here, cannot fall below \$40,000,000. A large class of minor industries, such as slate, marble, limestone, sandstone, fire brick and various others of that class, we have not the data to estimate—probably \$20,000,000 would be a low figure.

RECAPITULATION.

No. 1.....	\$3,475,831,851 00
2.....	433,250,801 66
3.....	393,913,734 60
4.....	1,519,128,870 60
5.....	522,078,349 00
6.....	129,710,855 00
	<hr/>
	6,473,914,461 86
	<hr/>

STATE TAXATION ON CORPORATIONS AND LICENSES.

Editor of the Missouri Republican :—Mr. Bergner, editor of the *Harrisburg Telegraph*, has referred to me your letter of the 27th ult., requesting information in regard to the working of the excellent revenue law of Pennsylvania—in its bearing upon legislation in your own State. This information is outside of my line of official duty—still I deem it my duty to answer all courteous questions tending to demonstrate the merits of our own good old State. I am sorry to say our financial reports heretofore have not been calculated to enlighten an outsider on the points in regard to which you inquire.

Your wish, I have no doubt, is to be informed in regard to our State revenue system. Our State system is, in my judgment, an excellent one, and differs greatly from any other State. Pennsylvania collects the revenue to pay the expenses of the State government, from taxes on *corporations* and *licenses*. She imposes, on the other hand, the entire burden of local taxation upon her real and personal estate, as found in the Assessor's books. In many of the other States her system would not be possible, because they have not the large corporations upon which taxation adequate to support the State government could be imposed.

In Pennsylvania this system of defraying the expenses of the State has been the general rule. The only exception being the heavy internal im-

provement debt of \$42,000,000. This forced her to impose what was generally known as the three mill tax of April, 1844, until repealed by the act of February, 1866. In our early history, and again since 1866, the State government relies almost entirely upon corporation taxes and licenses for its support. Under the three mill tax something like \$1,800,000 annually was collected from real and personal property, to meet the annual expenses of the State from 1844 to 1866. You must not understand that the general property of the State has heretofore, or is now escaping taxation. On the contrary, the cities, counties, boroughs and townships impose taxation for local purposes upon this species of property, amounting in the aggregate to at least six times, probably seven times, that of the entire State taxation.

This local taxation is essentially the same that is imposed upon kindred property in other States. The peculiarity of Pennsylvania is her confining taxation for State purposes to her moneyed corporations. This I shall now briefly explain: Pennsylvania in 1872, received taxes upon corporation stocks, \$1,308,025 25, being one-half mill upon each one per cent. of dividend. This will perhaps be better understood by saying that the various corporations of the State paid out in 1872, over \$26,000,000 in dividends, five per cent. of this going to the State Treasury, called tax upon corporation stocks. Corporations also paid interest to bondholders amounting to nearly \$10,000,000, five per cent. upon which, going to the State Treasury, amounted to \$492,407 28, called tax on loans. The said corporations realized in the form of net earnings, nearly \$12,000,000, three per cent. of which paid into the State Treasury, amounted to \$348,048 80, (manufacturing corporations were released from this tax by act of 1873.) Railroads and canals engaged in transportation, paid into the Treasury three-fourths of one per cent. of gross receipts for transportation, amounting to \$457,531 19. (This had been imposed as a war tax, and was repealed in 1873.) The railroads and canals paid a tonnage tax aggregating \$502,875 34, and a special tax on railroad companies, both mining and transporting anthracite coal to market, amounting to \$299,354 24. The treasurers of the corporations were required to withhold all these taxes, and pay the same to the State Treasury; hence their collection cost nothing to the State.

I will now append a tabular statement of the entire revenues of the State from the Auditor General's report, that with these explanations, may enable an outsider to comprehend our Pennsylvania system of State taxation, omitting several extraneous items not belonging to annual revenue and that would confuse a stranger.

Tax on banks.....	\$268,102 02
corporation stocks.....	1,308 025 25
loans.....	492,407 28

HISTORICAL AND FINANCIAL.

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Tax on net earnings.....	\$348,048 80	
gross receipts.....	457,531 19	
tonnage.....	502,875 34	
coal.....	299,354 24	
foreign insurance companies.....	351,396 08	
		<hr/>
Aggregate paid by corporations.....	4,027,740 20	
Auctions.....	\$36,703 97	
Personal property.....	561,316 12	
Enrolment of laws.....	30,080 00	
Writs, wills, deeds, &c.....	119,380 32	
Certain officers.....	20,770 56	
Collateral inheritance tax.....	354,819 98	
Eating house licenses.....	42,316 81	
Tavern.....do.....	346,116 70	
Retailers'.....do.....	424,941 83	
Miscellaneous.....	26,575 01	
		<hr/>
		1,963,021 30
		<hr/>
		5,990,761 50
		<hr/>

An analysis of the foregoing figures show that our State Treasury, in 1872, received from railroads \$2,318,807 48, not including \$547,500 paid by Pennsylvania and Allegheny Valley railroad companies, on account of purchase of public works and bonds exchanged; these items being payment of debts not annual revenue; from insurance companies, \$417,498 48; from banks, \$268,102 02; from all other corporations, \$1,023,352 54; practically that two-thirds of all State revenues come from corporations, and one-third from all other sources, omitting some receipts from irregular sources that would only confuse a stranger.

The financial system of Pennsylvania, as applicable to cities, counties, &c., probably does not differ essentially from that in Missouri. and to my mind is susceptible of great improvement.

The above explanation and accompanying tables will enable you to comprehend the peculiarities of our State revenue system. The most of these corporate taxes are regulated by the act of May 1, 1868, pamphlet laws 108-114.

Respectfully submitted,

THOS. J. BIGHAM,

Commissioner of Statistics.

NOVEMBER 3, 1873.

LOCAL TAXATION IN PENNSYLVANIA.

I have never seen any attempt to report the amount of taxation for local purposes in our State. We have no laws requiring returns to any one office where such information can be procured. The school report for 1872, pages 366-7, gives—

Expenditures for school purposes	\$8, 223, 072 78
In the city of Philadelphia we have the exact report of all the taxes assessed.....	10, 220, 492 64
County taxes in the other sixty-five counties as per return of county commissioners.....	3, 923, 458 48
We have no returns of the road and poor taxes assessed in the other sixty-five counties of the State. Supervisors and overseers have authority to assess each ten mills. This on the property of the sixty-five counties, twenty mills on \$6,609,442 95.....	13, 218, 885 90
We have no returns of city and borough taxes in the va- rious cities and boroughs, but estimate the same (Phila- delphia excluded) at.....	10, 000, 000 00
	<u>45, 585, 909 80</u>

We have not included in this estimate assessments by city and borough officials for the opening, grading and paving of streets. These assessments are generally based upon the estimated benefits to one portion of property being assessed upon another. Without that, however, our report and esti- mate of local taxation reaches the enormous sum of.....	\$45, 000, 000 00
Our State taxation about.....	6, 000, 000 00
	<u>51, 000, 000 00</u>

Assuming that the population of our State is closely verging upon four millions, of which two-fifths, or one million six hundred thousand, pay the increased expenses incident to city life; and the other three-fifths, or two millions four hundred thousand, are only subjected to the economical rates of agricultural life; the estimate for the payment of this taxation would be as follows;

Cities, (\$1,600,000 at \$18 per capita)	\$28, 800, 000 00
Country, (\$2, 400, 000 at \$9 per capita).....	21, 600, 000 00
	<u>50, 400, 000 00</u>

In other words that each citizen of Pennsylvania residing in a city pays of all kinds of taxes for the support of government, annually, \$18; and that each one in agricultural life pays about one-half that amount. Detailed and exact statistics show that in the old world the running of the machine called government costs to each resident twice the amount we pay in Pennsylvania.

STATES AND TERRITORIES.

STATISTICAL STATEMENT showing the area, population and assessed valuation of the States and Territories of the United States of America, June 1, 1860, and January 1, 1870, and the railroad mileage therein, January 1, 1862, and January 1, 1872, comparatively.

STATES AND TERRITORIES.	Area in sq. miles	Population.		Assessed valuation.		Miles of railroad.	
		1860.	1870.	1860.	1870.	1862.	1872.
Alabama.....	50,722	964,201	996,992	\$432,198,762	\$155,582,595	805	1,671
Arkansas.....	52,198	435,450	484,471	180,211,330	94,528,843	38	258
California.....	188,981	379,994	560,247	139,654,667	209,044,068	23	1,013
Connecticut.....	4,674	460,147	537,454	341,256,976	425,433,537	630	820
Delaware.....	2,120	112,216	125,015	39,929,685	64,787,223	127	227
Florida.....	59,268	140,424	187,748	68,929,685	32,480,843	402	466
Georgia.....	58,000	1,057,286	1,184,109	618,232,387	227,219,519	1,420	2,108
Illinois.....	55,410	1,711,951	2,539,891	389,207,372	482,899,575	2,998	5,904
Indiana.....	33,809	1,350,428	1,680,637	411,042,424	663,455,044	2,175	3,529
Iowa.....	55,045	674,913	1,191,792	205,166,985	302,515,418	3,160	3,160
Kansas.....	81,318	107,209	354,399	22,518,232	92,125,861	.....	1,760
Kentucky.....	37,000	1,155,684	1,321,011	528,212,693	409,544,294	567	1,123
Louisiana.....	41,346	708,002	726,915	435,787,265	253,371,890	335	539
Maine.....	31,776	628,279	626,915	154,380,388	204,253,780	505	871
Maryland.....	11,184	687,049	780,894	297,135,218	423,834,918	408	820
Massachusetts.....	7,800	1,231,066	1,457,351	777,157,816	1,591,983,112	1,285	1,603
Michigan.....	56,451	749,113	1,184,059	163,533,005	272,242,917	853	2,235
Minnesota.....	83,531	172,023	439,706	32,018,773	84,135,332	.....	1,612
Mississippi.....	47,156	791,305	827,922	509,472,912	177,278,890	862	990
Missouri.....	65,350	1,182,012	1,721,295	266,985,851	556,129,969	838	2,580
Nebraska.....	75,995	28,841	122,993	7,426,949	54,584,616	.....	828
Nevada.....	112,090	6,857	42,491	.....	25,740,973	.....	593
New Hampshire.....	9,280	326,073	318,300	123,810,089	149,065,290	661	790
New Jersey.....	8,820	672,035	906,096	296,682,492	624,868,971	633	1,265
New York.....	47,000	3,880,735	4,382,759	1,390,464,638	1,967,001,185	2,728	4,470
North Carolina.....	50,704	992,622	1,071,361	292,297,602	130,378,622	937	1,190
Ohio.....	39,964	2,339,511	2,665,260	959,869,101	1,167,731,697	3,100	3,740
Oregon.....	95,244	52,465	90,923	19,024,915	31,798,510	4	159

Pennsylvania.....	46,000	2,906,215	3,521,791	719,253,335	1,319,236,042	3,206	5,113
Rhode Island.....	1,306	174,620	217,353	125,104,305	244,278,854	108	136
South Carolina.....	29,385	703,708	705,606	489,319,128	183,913,337	973	1,201
Tennessee.....	45,600	1,109,801	1,258,520	382,493,200	253,782,161	1,253	1,520
Texas.....	237,504	604,215	1,188,579	267,792,334	149,732,929	1,451	865
Vermont.....	10,212	315,098	330,551	84,758,619	102,548,528	562	675
Virginia.....	40,904	1,219,630	1,225,163	657,021,336	365,439,917	1,379	1,490
West Virginia.....	23,000	376,688	442,014	140,538,273	140,538,273	361	485
Wisconsin.....	53,924	775,881	1,054,670	156,226,169	333,209,838	961	1,725
Total States.....	1,950,171	31,183,744	38,113,253	11,984,576,538	14,021,297,071	32,120	59,587
TERRITORIES.							
Arizona.....	113,916	•	9,658	•	\$1,410,295	•	•
Colorado.....	104,500	34,277	39,864	•	17,338,101	•	392
Dakota.....	147,490	4,837	14,181	•	2,924,489	•	•
District of Columbia.....	60	75,080	131,700	\$41,084,945	74,271,693	*	*
Idaho.....	90,932	•	14,999	•	5,292,205	•	•
Montana.....	143,776	•	20,535	•	9,943,411	•	•
New Mexico.....	121,201	•	91,874	20,838,780	17,784,014	•	•
Utah.....	80,056	40,273	86,786	4,158,120	12,565,842	•	375
Washington.....	69,994	11,594	23,955	4,394,735	10,642,863	•	•
Wyoming.....	93,107	•	9,118	•	5,516,748	•	498
Total territories.....	965,032	259,577	442,730	70,476,580	157,689,661	•	1,265
Aggregate—United States.....	2,915,203	31,443,321	38,555,983	\$12,055,053,118	\$14,178,986,732	32,120	60,852

* Included in the railroad mileage of Maryland.

TABLE showing the assessed valuation of the State by counties in 1851, 1863 and 1872; the estimated cash value in 1873; the census valuation of manufactures in 1870; also estimated cash value of same in 1875 by counties.

COUNTIES.	1851.	1863.	Total assessed value of real and personal estate, 1872.....	Multiple to produce true value.....	True value of real and personal estate,	Value of manufac- tures as per census of 1870.....	Estimated value of manufactures in 1873, being an in- crease of 40 per cent. on census re- turns of 1870.....
Adams.....	\$4,673,224	\$5,138,390	\$5,797,395	4	\$23,189,580	\$1,415,126	\$1,981,176
Allegheny.....	24,098,220	26,123,389	44,315,037	6	265,890,522	88,789,414	121,305,179
Armstrong.....	2,071,330	3,027,873	13,748,113	3	41,244,339	4,337,357	6,072,299
Beaver.....	3,609,585	4,193,151	4,905,032	5	24,525,160	4,024,083	5,633,716
Bedford.....	2,207,904	3,458,223	3,044,783	7	21,313,481	1,587,024	2,221,833
Berks.....	22,535,613	22,918,666	20,637,873	6	123,947,238	16,243,453	22,740,834
Blair.....	4,042,564	4,900,758	6,487,817	4	25,951,268	6,428,366	8,999,712
Bradford.....	3,564,791	3,492,938	7,628,770	5	38,143,850	2,738,395	3,833,753
Butler.....	2,620,125	4,344,806	6,984,136	4	27,936,544	1,330,032	1,892,044
Bucks.....	16,940,832	19,298,126	18,494,101	4	73,976,404	4,732,118	6,624,965
Cambria.....	1,063,185	2,164,877	5,164,081	5	25,820,440	8,041,813	12,098,538
Cameron.....	.....	313,509	833,672	4	3,333,672	896,810	1,255,534
Carbon.....	2,057,999	3,454,858	2,729,887	6	16,379,322	2,955,783	4,138,096
Centre.....	5,043,876	4,450,806	4,412,546	5	22,062,830	3,047,674	4,206,743
Chester.....	21,899,432	24,276,907	62,310,273	1½	93,465,909	11,494,543	16,092,360
Clarion.....	1,633,882	2,241,952	2,631,130	6	15,786,780	1,355,506	1,897,703
Clearfield.....	1,115,792	1,625,020	6,992,246	2	13,984,492	1,109,405	1,553,107
Clinton.....	1,837,669	3,066,478	3,050,065	4	12,200,260	3,646,526	5,105,136
Columbia.....	4,885,477	3,260,273	5,020,837	3	15,062,511	2,706,290	3,788,863
Crawford.....	2,984,162	5,431,246	8,687,841	5	43,439,205	10,157,009	14,219,812
Cumberland.....	10,595,808	12,385,594	16,432,646	3	49,297,938	3,249,032	4,548,644
Dauphin.....	9,784,493	12,529,140	15,749,405	4	62,997,620	13,514,156	18,919,818
DeLaware.....	8,578,363	10,137,445	32,752,000	1½	49,128,000	11,041,654	15,458,315
Elk.....	393,830	844,111	1,776,933	4	7,107,732	1,524,392	2,134,148
Erie.....	3,848,526	5,739,208	38,816,581	1½	58,224,871	9,697,987	13,577,181
Fayette.....	5,248,920	5,337,731	13,545,243	3	40,635,729	3,527,404	4,938,335
Franklin.....	11,939,842	12,674,963	13,599,828	3	40,799,481	3,621,349	5,069,888
Fulton.....	710,205	1,187,487	983,247	5	4,616,235	512,433	717,496

Forest.....	175, 213	744, 713	3	2, 234, 139	303, 191	424, 507
Greene.....	3, 129, 671	8, 493, 198	2	16, 986, 396	573, 050	802, 270
Huntingdon.....	4, 750, 651	6, 158, 247	4	24, 632, 988	2, 319, 152	3, 246, 812
Indiana.....	2, 534, 692	3, 820, 225	6	22, 921, 350	1, 393, 408	1, 950, 771
Jefferson.....	1, 576, 517	2, 245, 782	5	11, 228, 910	1, 238, 613	1, 734, 058
Juniata.....	2, 948, 954	1, 308, 914	7	9, 162, 398	678, 345	949, 683
Lancaster.....	35, 863, 165	42, 559, 496	3	127, 678, 488	14, 034, 180	19, 647, 852
Lawrence.....	2, 804, 064	4, 774, 378	4	10, 097, 512	3, 430, 700	4, 815, 580
Lebanon.....	7, 870, 054	11, 781, 114	3	35, 343, 342	4, 160, 084	5, 824, 117
Lehigh.....	8, 489, 166	10, 362, 699	5	51, 813, 495	15, 480, 848	21, 673, 187
Luzerne.....	3, 176, 352	10, 971, 927	14	153, 706, 978	17, 493, 463	24, 490, 848
Lycoming.....	3, 575, 326	6, 548, 885	6	39, 293, 310	9, 081, 406	12, 713, 968
M'Kean.....	539, 404	689, 675	6	4, 138, 050	358, 984	502, 577
Mercer.....	3, 446, 214	20, 915, 307	2	41, 830, 614	6, 544, 277	9, 161, 987
Mifflin.....	4, 153, 775	3, 600, 000	4	14, 400, 000	1, 616, 985	2, 263, 779
Monroe.....	1, 566, 116	1, 445, 655	7	10, 119, 585	2, 232, 539	3, 125, 554
Montgomery.....	16, 649, 664	36, 732, 893	2	73, 465, 726	16, 933, 703	23, 707, 181
Montour.....	1, 916, 432	2, 336, 931	6	14, 221, 585	4, 857, 602	6, 800, 642
Northampton.....	13, 548, 538	13, 663, 980	4	54, 654, 840	12, 530, 831	17, 543, 167
Northumberland.....	4, 434, 205	7, 016, 529	4	28, 066, 116	4, 207, 855	5, 890, 997
Perry.....	3, 057, 500	3, 510, 000	4	14, 040, 000	2, 412, 626	3, 377, 676
Philadelphia.....	174, 716, 221	511, 024, 682	2	1, 022, 049, 364	322, 004, 517	450, 806, 323
Pike.....	670, 403	993, 500	5	4, 817, 500	692, 313	969, 238
Potter.....	646, 000	1, 001, 908	6	6, 011, 448	249, 724	349, 613
Schuylkill.....	8, 972, 005	19, 595, 333	5	97, 976, 065	9, 586, 114	13, 420, 559
Somerset.....	2, 833, 818	4, 049, 988	4	16, 196, 952	1, 240, 671	1, 736, 939
Snyder.....	2, 686, 253	3, 222, 144	3	9, 666, 432	591, 449	828, 028
Sullivan.....	350, 254	594, 753	6	3, 568, 518	390, 877	547, 227
Susquehanna.....	2, 607, 359	3, 296, 111	6	21, 376, 800	3, 225, 054	4, 515, 075
Tioga.....	1, 597, 193	2, 439, 508	3	19, 424, 067	2, 190, 852	3, 067, 192
Union.....	5, 862, 853	3, 870, 439	3	14, 868, 000	1, 288, 692	1, 804, 168
Venango.....	1, 275, 221	1, 950, 060	3	34, 260, 172	4, 516, 566	6, 323, 192
Warren.....	1, 196, 736	1, 796, 687	6	12, 948, 480	3, 224, 768	4, 514, 675
Washington.....	9, 267, 728	15, 341, 367	3	46, 024, 101	2, 037, 441	2, 852, 417
Wayne.....	1, 371, 750	1, 597, 730	11	17, 575, 030	3, 714, 075	5, 199, 705
Westmoreland.....	7, 939, 349	8, 782, 065	6	52, 692, 990	2, 592, 487	3, 629, 481
Wyoming.....	1, 009, 014	1, 475, 985	7	10, 125, 895	1, 013, 831	1, 419, 363
York.....	12, 915, 556	12, 732, 033	6	76, 752, 198	7, 028, 934	9, 840, 507
482, 898, 832	596, 896, 619	1, 171, 908, 977	.....	3, 475, 831, 851	711, 894, 344	996, 526, 094

As a basis of comparison the 1 and 2 columns are from the Revenue Commissioners reports of 1851 and 1863. The 3, 4 and 5 columns are copied from preceding table. Column 6 is value of manufacturing products as per census of 1870; and the last column gives my estimate of value of products of manufactures in 1873, allowing 40 per cent. for omissions and increase from 1870 to 1873.

HISTORICAL AND FINANCIAL.

WEALTH, taxation, estimated true valuation and public indebtedness of the State of Pennsylvania.

COUNTIES.	I. Assessed val- ue of real estate.	II. Assessed value of personal property.	III. Total assessed value of real and person- al estate.	IV. Multiple to produce true value.	V. True value of real and per- sonal es- tate.	VI. Popula- tion, 1870.	VII. Value to each person	VIII. Amount of bonded debt.	IX. Amount of floating debt.	X. County tax's assessed.
Adams.....	\$4,717,076	\$1,080,319	\$5,797,395	4	\$23,189,580	30,315	\$765	.....	.....	\$46,529 26
Allegheny.....	37,074,161	7,240,926	44,315,087	6	265,890,522	262,204	1,014	\$2,257,065 35	\$141,154 74	445,492 21
Armstrong.....	11,488,318	2,259,795	13,748,113	3	41,244,339	43,382	951	165,000 00	.....	65,000 00
Beaver.....	4,602,546	302,486	4,905,032	5	24,525,160	36,148	678	5,000 00	.....	48,912 00
Bedford.....	*2,742,383	*302,400	3,044,783	7	21,313,481	29,635	719	9,950 00	.....	.....
Berks.....	18,466,318	2,191,555	20,657,873	6	123,947,238	106,701	1,161	.....	15,700 00	109,381 63
Blair.....	6,261,065	226,752	6,487,817	4	25,951,268	38,051	682	20,000 00	5,000 00	52,378 00
Bradford.....	6,701,320	927,450	7,628,770	5	38,143,850	53,204	717	.....	.....	45,772 61
Bucks.....	†18,494,101	.....	18,494,101	4	73,976,404	64,336	1,150	.....	.....	92,470 50
Butler.....	6,634,930	349,206	6,984,136	4	27,936,544	36,510	792	8,000 00	11,000 00	49,000 00
Cambridge.....	4,641,992	522,092	5,164,084	5	25,820,440	36,569	706	70,000 00	3,000 00	41,860 00
Cameron.....	740,160	93,258	833,418	4	3,333,672	4,273	780	4,500 00	6,586 82	7,973 94
Carbon.....	2,592,303	†37,584	2,729,887	6	16,379,322	28,144	582	88,435 00	3,618 10	53,452 58
Centre.....	*3,974,868	*437,678	4,412,546	5	22,032,830	34,418	641	.....	.....	.....
Chester.....	54,829,103	7,481,170	62,310,273	1½	93,465,909	77,805	1,201	551,626 00	.....	153,299 43
Clarion.....	2,369,000	262,130	2,631,130	6	15,786,780	25,537	594	70,000 00	.....	21,458 56
Clearfield.....	5,984,136	1,008,110	6,992,246	2	13,984,492	25,741	543	71,000 00	.....	34,960 10
Clinton.....	*2,829,000	*221,065	3,050,065	4	12,200,260	23,211	530	.....	.....	.....
Columbia.....	4,810,827	210,010	5,020,837	3	15,062,511	28,766	523	.....	.....	23,317 49
Crawford.....	7,622,579	1,065,262	8,687,841	5	43,439,205	63,832	680	359,236 67	3,035 77	123,628 88
Cumberland.....	14,202,516	2,230,130	16,432,646	3	49,297,938	43,912	1,122	27,438 00	.....	57,082 00
Dauphin.....	15,083,363	666,042	15,749,405	4	62,997,620	60,740	1,037	207,700 91	.....	135,645 00
Delaware.....	30,000,000	2,752,000	32,752,000	1½	49,128,000	39,403	1,246	483,078 62	600 00	98,256 70
Elk.....	1,560,743	216,190	1,776,933	4	7,107,732	8,488	838	4,500 00	5,000 00	13,000 00
Erie.....	37,387,600	1,429,981	38,816,581	1½	58,224,871	65,973	882	12,700 00	15,731 25	121,534 75
Fayette.....	12,543,507	991,734	13,545,243	3	40,635,729	43,284	708	7,006 00	.....	61,881 08
Forest.....	699,673	45,040	744,713	3	2,234,139	4,010	532	25,000 00	700 00	14,894 26
Franklin.....	11,745,765	1,854,063	13,599,828	3	40,799,484	45,365	899	29,776 00	.....	58,835 95
Fulton.....	*864,368	*118,879	983,247	5	4,616,235	9,360	493	.....	.....	29,901 54
Greene.....	7,953,081	540,117	8,493,198	2	16,986,396	25,887	656	.....	.....	36,949 68
Huntingdon.....	5,535,025	623,222	6,158,247	4	24,632,988	31,251	788	.....	.....	.....

Indiana.....	3, 181, 447	638, 778	3, 820, 225	6	22, 921, 350	36, 138	634	164, 601 00	19, 601 37	38, 202 25
Jefferson.....	2, 023, 020	222, 762	2, 245, 782	5	11, 228, 910	21, 656	518	95, 000 00	7, 000 00	18, 174 16
Juniata.....	*1, 165, 151	*143, 263	1, 308, 914	7	9, 162, 398	17, 390	526			
Laurester.....	31, 317, 250	11, 242, 746	42, 559, 496	3	127, 678, 488	121, 840	1, 052	165, 000 00	40, 000 00	146, 991 13
Lawrence.....	4, 124, 374	650, 004	4, 774, 378	4	19, 097, 512	27, 298	699	251, 758 13		99, 166 04
Lebanon.....	9, 455, 385	2, 325, 729	11, 781, 114	3	35, 343, 342	34, 096	1, 036	16, 526 60	10, 000 00	58, 820 23
Lehigh.....	*8, 508, 277	*1, 854, 422	10, 362, 699	5	51, 813, 495	56, 796	912			
Luzerne.....	9, 753, 044	1, 218, 883	10, 971, 927	14	153, 706, 978	160, 755	956	79, 250 00	5, 600 00	109, 940 83
Lycoming.....	6, 264, 210	284, 675	6, 548, 885	6	39, 293, 310	47, 626	825	131, 319 63		62, 642 10
M'Kean.....	*649, 629	*40, 046	6, 689, 675	6	4, 138, 050	8, 825	468			
Mercer.....	19, 977, 370	937, 937	20, 915, 307	2	41, 830, 614	49, 977	837	39, 759 32	9, 823 22	88, 109 36
Mifflin.....	3, 000, 000	600, 000	3, 600, 000	4	14, 400, 000	17, 508	822	5, 500 00	500 00	
Monroe.....	1, 369, 029	76, 626	1, 445, 655	7	10, 119, 585	18, 362	551	5, 640 00	800 00	17, 000 00
Montgomery.....	32, 037, 491	4, 695, 372	36, 732, 863	2	73, 465, 726	81, 612	900	149, 703 98		146, 931 45
Montour.....	2, 206, 385	131, 546	2, 336, 931	6	14, 221, 586	15, 344	927	21, 000 00		18, 975 84
Northampton.....	10, 314, 387	3, 349, 573	13, 663, 960	4	54, 654, 840	61, 432	889	75, 925 00		114, 408 90
Northumberland.....	6, 572, 268	444, 261	7, 016, 529	4	28, 066, 116	41, 444	677		20, 709 87	51, 210 55
Perry.....	2, 998, 019	511, 981	3, 510, 000	4	14, 040, 000	25, 447	551	60, 156 00	1, 000 00	28, 105 96
Philadelphia.....	502, 415, 863	8, 608, 819	511, 024, 882	2	1, 022, 049, 364	674, 022	1, 516	51, 697, 141 67	2, 517, 948 82	10, 220, 493 61
Pike.....	900, 000	63, 500	963, 500	5	4, 817, 500	8, 436	571	21, 000 00	4, 000 00	12, 425 00
Potter.....	956, 423	45, 485	1, 001, 908	6	6, 011, 448	11, 265	533	27, 900 00	6, 438 83	156, 762 66
Schuylkill.....	18, 676, 511	918, 822	19, 595, 333	5	97, 976, 665	116, 428	841			17, 898 89
Snyder.....	2, 863, 572	358, 572	3, 222, 144	3	9, 666, 432	15, 606	619			31, 378 00
Somerset.....	3, 382, 588	667, 400	4, 049, 988	4	16, 196, 952	28, 226	573		642 24	5, 221 07
Sullivan.....	522, 017	72, 736	594, 753	6	3, 568, 518	6, 191	576	14, 000 00	15, 000 00	31, 996 16
Susquehanna.....	3, 009, 000	562, 800	3, 562, 800	6	21, 376, 800	37, 523	569	43, 734, 69		46, 237 84
Tioga.....	5, 886, 990	598, 039	6, 474, 689	3	19, 424, 057	35, 097	553		2, 800 00	14, 868 00
Union.....	4, 500, 000	456, 000	4, 956, 000	3	14, 868, 000	15, 565	955			81, 000 00
Venango.....	8, 101, 075	464, 718	8, 565, 793	4	34, 260, 172	47, 925	715	221, 000 00		21, 065 56
Warren.....	1, 813, 694	344, 396	2, 158, 080	6	12, 948, 480	23, 897	541			70, 745 00
Washington.....	14, 144, 208	1, 197, 159	15, 341, 367	3	46, 024, 101	48, 483	940	103, 000 00	33, 000 00	23, 958 36
Wayne.....	1, 253, 030	344, 700	1, 597, 730	11	17, 575, 030	38, 188	529			63, 866 98
Westmoreland.....	7, 841, 843	940, 822	8, 782, 665	6	52, 692, 990	58, 719	897	6, 000 00		15, 900 00
Wyoming.....	1, 253, 868	222, 117	1, 475, 985	7	10, 125, 895	14, 585	694	5, 600 00		
York.....	*10, 214, 599	*2, 577, 434	12, 792, 033	6	76, 752, 198	76, 134	1, 008			
	1, 087, 793, 844	85, 599, 429	1, 171, 968, 977		3, 475, 831, 851	3, 521, 791				

* Taken from the returns to the Board of Revenue Commissioners in 1863; the present county commissioners, having been repeatedly requested, neglect to make returns.
 † Personal property included.

No official returns from the various county records of the assessed value of the real and personal property of the whole State have been compiled and published since the State Revenue Board's report of March 19, 1863. The then aggregates were, real estate, \$526,000,000; personal, \$70,000,000. By our returns the real has more than doubled; the personal only increased twenty-two per cent. But this \$561,000,000 increase in real estate is nearly all in ten or twelve counties, leaving the other fifty-four counties about as they were ten years since. I had to persevere almost six months before I received these returns, and some half dozen, marked with a star, made no returns, and theirs are taken from the report of Revenue Board of 1863.

The personal property upon which each county has paid State taxes since 1866 (\$171,686,918, Smull's Legislative Hand-Book of 1872, p. 377.) was adopted from United States census of 1860. This more than doubles the aggregate State returns in the commissioners' offices, and in some counties was six or eight times of an increase. In such counties the State tax was taken from the county treasury, and nine-tenths of it collected in fact, though not *eo nomine*, from real estate.

The fourth column gives the multiplier required, in my judgment, to bring the assessed to the true cash value. In a few counties, Chester, Delaware and Erie, and measurably in Montgomery and Philadelphia, the assessed creditably approximates the cash value. In others the assessed is shamefully below the cash value: in one, the third county of the State, only one-fourteenth. Since 1866 we have had no State tax on real estate, and if its aggregate assessed value was brought up to what the law and the oath of all assessors, county commissioners, &c., requires, it would add to no man's tax one dime.

The fifth column puts in figures my idea of the true cash value of the property of each county.

The sixth column contains population as per census of 1870. This, as developed in the seventh column, is a basis from an entirely different standpoint to estimate the wealth of each county. The old and wealthy counties should exhibit a higher value to each person than the newer and poorer counties. By my table the average is \$987 on true valuation and \$332 on assessed value. Each one must judge for himself how far the figures in the seventh column approximate truth.

I have had these tables struck off in advance of my annual report, to call the attention of the county commissioners and assessors to these returns and to how each county stands in relation to the other counties of the entire State. Each of the sixty-six counties, acting for itself, has resulted in a sad want of uniformity.

THOS. J. BIGHAM,
Commissioner of Statistics.

SEPTEMBER 1, 1873.

THE BANKING AND MONEY CAPITAL OF THE STATE.

I have endeavored in the annexed tables to secure an approximate estimate of the active circulating capital of the State. I use the official returns made to the National and State governments at the 1st of May, 1872, (the latest full returns I can procure of the amount of banking capital). My estimates are based, not as usual on capital stock, (that is given in the tables,) but upon the entire aggregate resources of the National and State banks. As the National government will not increase the amount of National banking capital, an epidemic has seized our people for State deposit banks. The increase was over \$11,000,000 in 1872, and I have allowed for a like increase in 1873.

I have returns from four savings banks of the mongrel kind, having no capital stock, and therefore not reporting to the Auditor General, showing \$18,540,666 48 of all resources by them. I know there are a number of others of this class, and therefore I have assumed one-half as not reporting. Building and loan associations get their charters from the courts of each county and make no returns. I have estimated the mortgages held by them at \$25,000,000.

The amount of loans by private bankers, brokers, money-lenders in all shapes, including pawn brokers and all varieties of skin-flints, I have estimated at \$125,000,000.

These aggregate as follows: (See annexed tables.)

National Banks.		Resources.
Pennsylvania, 155 banks.....		\$89,470,661 03
Philadelphia, 29.....do.....		83,152,770 25
Pittsburg, 16.....do.....		30,290,300 82
		<hr/>
		202,913,732 10
State Banks. (See annexed table.)		
Dec. 1, 1872. Aggregate resources, 96 banks.....		32,218,177 85
Increase in 1873 same as in 1872.....		11,037,558 73
		<hr/>
		43,255,736 58
Building and loan associations, estimated.....		25,000,000 00
Private bankers and all kinds of money lenders.....		125,000,000 00
		<hr/>
Aggregate of money capital in Pennsylvania.....		396,169,468 68
		<hr/>

Now what rate of interest do the various industries of the State pay for the use of this money? The best class of banks charge eight to ten per cent. on their loans. The second class of banks and all private bankers charge ten to twelve per cent. The pawnbrokers and skin-flints charge the poorer classes from twelve to twenty-five per cent. Can the laborer, the mechanic and the manufacturer stand such rates of interest? Earnest efforts have been made in the Legislature and in the Constitutional Convention to increase the legal rates, or to repeal all restrictive charges for the use of money. But at the end of one hundred and fifty years the law stands unchanged. All our political economists denounce these exorbitant rates of interest as the sole drawback to the success of Pennsylvania as the great mining and manufacturing State. The ingrained prejudices of the mass, whenever aroused, always has, and the probabilities are, always will defeat any attempt to increase the present rate of interest as fixed by law.

Perhaps these ancient laws are indeed obsolete—they at least serve to remind the present generation what our forefathers thought was a fair compensation for the use of money. And if any legislator could be found to devise a plan by which the laborer, the mechanic, the manufacturer and the merchant could procure the use of money to meet his every day wants at six per cent., he would deserve a monument, not of brass, but of gold! Certainly, money commands double what any political economist deems its share in the production of labor, the true foundation of all value.

A TABLE exhibiting the progress of the National banking system for ten years.

LIABILITIES.	1864.	1865.	1866.	1867.	1868.
Number of Banks..	508 Banks.	1513 Banks.	1644 Banks.	1642 Banks.	1644 Banks.
Capital stock	\$86,782,802	\$393,157,206	\$415,278,969	\$420,073,415	\$420,634,511
Deposits	122,166,536	549,081,254	597,960,993	568,212,337	603,084,550
RESOURCES.					
Loans and discounts	93,238,657	487,170,136	603,247,503	609,675,214	657,668,847
United States banks	108,064,496	427,731,300	426,657,350	418,963,050	414,664,800
LIABILITIES.	1869.	1870.	1871.	1872.	1873.
Number of Banks..	1617 Banks.	1615 Banks.	1767 Banks.	1919 Banks.	1933 Banks.
Capital stock	\$426,399,151	\$430,399,301	\$458,255,696	\$479,629,144	\$483,189,311
Deposits	523,029,491	512,765,708	626,774,021	625,708,307	666,381,099
RESOURCES.					
Loans and discounts	682,883,106	717,928,080	831,552,210	872,520,104	906,189,197
United States Banks	384,088,050	378,562,750	410,316,950	409,668,700	408,546,800

NATIONAL Banks of the State of Pennsylvania, at the close of business, December, 1872.

LIABILITIES.	Pennsylvania.	Philadelphia.	Pittsburg.
Number of Banks.....	155 Banks.	29 Banks.	16 Banks.
Capital stock.....	\$26,385,240 00	\$16,735,000 00	\$9,000,000 00
Surplus fund.....	6,587,630 51	6,913,661 90	2,872,907 43
Undivided profits.....	1,957,240 20	1,244,576 32	564,904 50
National bank notes outstanding.....	22,663,019 00	11,780,498 00	6,594,773 00
State bank notes outstanding.....	111,034 00	64,138 00	18,748 00
Dividends unpaid.....	154,886 33	123,330 81	44,476 25
Individual deposits.....	28,124,266 10	39,206,535 64	9,228,015 19
United States deposits.....	290,972 50	31,213 20	.....
Dep. of U. S. disbursing officers.....	17,744 78	.....	.....
Due to National banks.....	2,395,069 34	5,658,692 33	1,207,036 94
Due to State banks and bankers.....	469,909 51	1,384,624 05	614,984 57
Notes and bills re-discounted.....	245,924 26	.....	144,454 94
Bills payable.....	67,724 50	8,500 00	.....
Total.....	89,470,661 03	83,152,770 25	30,290,300 82
RESOURCES.			
Loans and discounts.....	\$43,876,958 02	\$40,363,917 63	\$15,540,012 61
Overdrafts.....	322,127 10	19,272 48	47,123 05
U. S. bonds to secure circulation.....	25,643,550 00	13,549,200 00	7,658,500 00
U. S. bonds to secure deposits.....	710,000 00	225,000 00	.....
U. S. bonds and securities on hand...	846,350 00	571,750 00	169,950 00
Other stocks, bonds and mortgages...	1,686,052 37	1,468,172 94	54,193 98
Due from res. and red. agents.....	4,828,228 53	4,039,316 41	1,983,711 98
Due from other National banks.....	1,802,240 13	2,789,572 79	315,384 97
Due from State banks and bankers...	1,217,430 58	653,350 08	249,564 51
Real estate, furniture and fixtures...	1,741,473 23	2,011,107 83	851,049 57
Current expenses.....	274,852 86	188,886 99	99,438 08
Premiums.....	308,190 24	168,788 19	25,050 82
Checks and other cash items.....	496,368 20	236,992 80	191,878 25
Exchanges for clearing house.....	.....	6,354,361 38	728,229 42
Bills of other National banks.....	808,310 00	1,199,271 00	181,477 00
Bills of State banks.....	933 00	138 00	1,225 00
Fractional currency.....	153,564 10	165,715 55	29,490 92
Specie.....	95,149 67	309,184 18	45,115 66
Legal tender notes.....	4,623,883 00	5,513,772 00	2,118,905 00
U. S. certificates of deposit.....	.....	1,330,000 00	.....
Clearing house certificates.....	.....	1,745,000 00	.....
Three per cent. certificates.....	35,000 00	250,000 00	.....
Total.....	89,470,661 03	83,152,770 25	30,290,300 82

TABULAR STATEMENT of the Resources of the Banks and Savings Institutions of Pennsylvania, November, 1873.

NAME.	Gold, silver, current notes and other obligations.....	Bills, notes, mortgages, judgments, public or corporate stocks and loans.....	Real estate and other property owned by bank.....	Due from banks, individuals and corporations.....	Expenses.....	Aggregate.....
Ashland Savings Bank.....	\$17,771 20	\$65,930 78	\$9,393 80	\$19,405 22	.....	\$112,701 00
Artisans' Deposit Bank.....	28,415 21	270,940 05	1,130 28	3,376 40	\$4,469 22	308,331 16
Ashley Savings Bank.....	1,382 71	21,745 98	736 50	5,648 46	1,861 59	31,375 24
Bank of America.....	58,117 24	535,698 72	6,431 71	98,275 79	10,175 58	708,699 04
Bank of Brandywine.....	12,526 61	195,832 30	51,180 00	12,473 16	2,788 12	274,800 19
Bank of Pittsburg.....	77,343 55	1,867,344 51	59,897 26	75,712 12	10,647 68	2,090,945 12
Butler Savings Bank.....	13,110 46	262,342 68	9,368 65	19,052 33	5,049 35	308,923 47
Carlisle Deposit Bank.....	8,278 55	606,909 60	13,098 26	47,981 13	.....	676,267 54
Coopersburg Savings Institution.....	2,787 12	106,155 26	6,608 67	.....	.....	115,551 05
Columbia Dime Savings Bank.....	2,678 82	63,096 28	753 99	5,407 36	1,499 14	71,435 59
City Deposit Bank and Trust Company, Pittsburg.....	3,125 60	151,362 44	2,833 36	8,675 74	219 90	166,217 04
Carbondale Miners' and Mechanics' Savings Bank.....	5,348 01	58,909 95	1,050 60	5,086 44	1,904 52	72,299 52
Dauphin Deposit Bank.....	4,413 00	584,011 85	24,422 26	110,510 01	4,730 18	728,087 30
Dime Savings Institution, Bethlehem.....	20,288 43	313,593 23	20,985 00	5,236 42	206 00	300,309 08
Dime Savings Institution, York.....	24,101 49	181,252 74	.....	31,507 90	.....	236,862 13
Dime Saving Fund, Slatington.....	4,141 19	89,708 31	5,511 91	20,953 83	.....	120,315 24
Dollar Savings Bank, Uniontown.....	38,006 95	181,297 04	2,245 15	.....	2,858 83	224,407 97
Duquesne Savings Bank.....	4,809 68	388,415 80	64,566 67	6,867 41	11,327 76	475,987 32
Deposit and Savings Bank, Catawissa.....	4,601 09	74,623 27	2,141 90	4,572 31	3 00	85,941 57
Dollar Savings Bank, Waynesburg.....	983 74	6,418 70	.....	25,000 00	98 31	32,500 75
Dollar Savings Bank, Wayneburg.....	35,531 78	780,819 54	5,325 93	47,764 16	.....	804,115 48
Erie Dime Savings and Loan Company.....	4,450 15	130,834 93	.....	.....	869 00	141,480 01
Enterprise Savings Bank, Allegheny.....	9,704 77	202,428 23	996 89	8,615 72	175 01	221,920 62
Empire Trust Bank.....	2,575 26	40,909 38	958 00	4,131 72	.....	48,574 36
Farmers' Savings Bank, Fogelsville.....	10,267 56	269,894 04	10,000 00	8,841 32	11,418 01	302,420 93
Farmers' and Mechanics' Bank, Shippensburg.....	13,158 54	162,136 18	2,336 18	7,000 88	2,283 75	186,715 53
Farmers' Bank, Carlisle.....	308 43	35,773 84	8,068 18	.....	1,670 81	45,819 26
Franklin Savings Bank, Allentown.....	11,370 82	278,370 15	13,158 34	4,785 34	1,334 65	309,019 30
Farmers' and Mechanics' Bank, East Birmingham.....	4,240 12	439,208 37	17,787 54	93,202 63	1,875 96	556,314 62
Freehold Bank.....	.....	.....	.....	.....	.....	.....

TABULAR STATEMENT—CONTINUED.

NAME.	Gold, silver, current notes and other obligations.....	Bills, notes, mortgages, judg'ts, public or corporate stocks and loans.....	Real estate and other property owned by bank.....	Due from banks, individuals and corporations.....	Expenses.....	Aggregate.....
Germania Savings Bank.....	\$13, 116 68	\$440, 595 76	\$807 15	\$108 25	\$4, 581 42	\$459, 209 26
Girard Savings Bank, Allentown.....	3, 090 25	81, 063 00	440 50	.....	734 26	83, 328 01
German Savings Institution, Erie.....	6, 245 44	250, 822 32	49, 793 66	22, 276 09	2, 305 40	331, 442 91
Hanover Savings Fund Society.....	5, 573 55	489, 899 33	143 95	18, 146 70	.....	513, 763 53
Harmony Savings Bank.....	2, 833 48	214, 679 09	4, 000 00	434 42	.....	221, 946 99
Humboldt Safe Deposit and Trust Company.....	23, 806 34	240, 832 41	9, 577 98	23, 404 70	641 51	298, 262 94
Hazleton Savings Bank.....	4, 216 84	113, 958 58	3, 636 88	3, 405 43	1, 133 17	125, 750 90
Hyde Park Bank.....	3, 039 61	79, 661 58	5, 358 35	29, 723 85	2, 796 09	120, 630 48
Iron Bank, Philadelphia.....	26, 707 99	48, 184 95	7, 815 10	4, 273 30	9, 015 52	95, 996 86
Iron and Glass Dollar Savings Bank.....	6, 901 41	210, 502 50	1, 613 96	2, 648 79	668 65	222, 335 31
Kutztown Savings Bank.....	5, 241 58	44, 228 68	792 21	5, 514 44	7, 837 37	58, 614 28
Keystone Bank.....	11, 518 06	500, 717 82	50, 329 55	39, 770 60	34, 091 14	636, 427 17
Lebanon Dime Savings Bank.....	6, 608 07	167, 854 06	2, 400 00	88, 543 07	1, 157 93	266, 563 13
Littlestown Savings Institution.....	1, 802 00	80, 161 59	868 63	149 95	1, 154 90	83, 137 07
Lykens Valley Bank.....	11, 119 75	133, 250 68	16, 849 73	6, 541 35	1, 563 51	169, 325 02
Masonic Deposit Savings Bank.....	24, 986 88	545, 807 42	37, 970 14	24, 593 02	3, 060 83	636, 418 29
Mechanics' Savings Bank, Pittsburg.....	4, 804 64	133, 231 10	2, 032 51	5, 643 88	.....	145, 712 13
Millers' and Miners' Bank.....	5, 074 00	111, 153 63	10, 934 50	10, 165 17	888 78	138, 216 08
Miners' Savings Bank, Wilkesbarre.....	20, 606 90	348, 913 84	1, 113 76	17, 839 62	1, 903 60	390, 397 72
Miners' Savings Bank, Pittston.....	7, 243 05	228, 340 07	14, 125 76	33, 819 99	1, 777 59	285, 306 46
Merchants' and Mechanics' Bank, Scranton.....	5, 926 42	385, 438 90	2, 561 55	34, 577 87	3, 248 60	431, 753 34
Manayunk Bank.....	12, 991 70	218, 021 72	11, 114 03	27, 097 64	2, 881 45	272, 106 54
Merchants' Bank, Easton.....	819 60	403, 503 63	1, 791 98	22, 355 63	2, 539 22	431, 010 06
Miners' Trust Company Bank.....	70, 916 20	1, 647, 664 35	30, 271 35	80, 298 95	.....	1, 829, 120 85
Miners' Deposit Bank, Lykens.....	5, 658 53	101, 284 90	2, 111 45	1, 726 84	1, 446 71	112, 228 43
Mountain City Bankings Company.....	4, 210 95	135, 991 22	3, 334 30	338 16	1, 951 26	145, 825 89
Mount Carmel Savings Bank.....	6, 693 49	67, 526 96	1, 325 99	2, 525 61	1, 032 85	79, 107 90
Miners' Trust and Safe Deposit Company, Shamokin.....	14, 130 96	116, 291 20	1, 360 49	13, 464 21	3, 292 79	148, 539 65
Newtown Banking Company.....	1, 862 49	69, 139 82	12, 272 58	3, 634 36	438 35	87, 344 60

Nation's Bank for Savings.....	2,413 51	86,172 13	925 71	3,636 80	1,161 68	90,673 03
North Lebanon Savings Bank.....	7,714 65	46,639 10	1,006 93	6,288 80	1,870 29	60,887 77
Oxford Banking Company.....	9,167 08	125,136 29	13,579 06	26,654 29	154 97	154,326 20
People's Savings Bank, Pittsburg.....	5,178 70	837,105 27	31,397 89	6,459 33	2,378 08	902,714 23
People's Bank, Philadelphia.....	169,936 25	648,015 39	49,326 18	7,845 47	7,614 70	881,351 85
People's Savings Institution, North-East.....	7,082 02	79,950 79	9,714 78	8,770 54	952 56	105,545 62
People's Savings Bank, Pittston.....	4,664 77	70,070 74	26,132 36	9,133 72	3,220 00	107,858 41
Pittston Trust Company and Savings Bank.....	3,665 22	88,218 38	13,305 17	8,264 29	3,802 77	118,125 26
Plymouth Savings Bank.....	6,610 85	39,593 61	2,155 42	4,036 33	675 17	57,299 84
People's Bank, Wilkesbarre.....	21,803 46	72,416 13	269 27	5,314 06	1,184 67	100,987 59
Quakertown Savings Bank.....	11,824 93	175,495 01	855 55	43,023 57	224 49	192,436 31
Reading Savings Bank.....	78,900 35	1,117,176 67	10,951 60	30,838 92	.....	1,239,100 59
Real Estate Savings Bank.....	3,783 62	737,874 51	9,800 00	4,609 08	4,269 28	783,448 65
Stroudsburg Bank.....	13,892 55	178,841 44	19,324 93	8,772 98	.....	211,412 95
Scranton Savings Bank.....	26,992 67	373,693 71	2,292 39	10,468 58	.....	428,781 29
Shrewsbury Savings Institution.....	7,789 07	118,093 27	8,575 92	69,938 56	1,618 71	140,262 02
State Bank, Harrisburg.....	17,907 16	247,172 23	46,964 27	136,766 31	1,896 89	345,490 76
Scranton Trust Company and Savings Bank.....	40,886 64	965,249 93	48,864 61	61,811 77	2,850 58	1,192,717 73
Safe Deposit Bank, Pottsville.....	27,202 45	648,636 15	28,072 83	3,997 48	9,534 38	1,796,049 36
Spring Garden Deposit and Savings Bank.....	64,924 13	248,047 08	88,007 28	664 99	7,743 86	348,787 90
Saucon Savings Bank.....	4,548 24	88,007 28	7,141 23	9,241 19	154 81	97,612 16
State National Bank, Philadelphia.....	25,748 51	177,101 30	2,676 12	.....	8,683 91	219,339 94
Shoe and Leather Savings Bank.....	4,591 56	168,308 32	31,750 94	2,623 16	1,975 69	186,792 88
South Side Savings Bank, East Birmingham.....	8,586 31	220,177 20	9,287 06	24,163 23	1,713 74	262,228 19
Twenty-Second Ward Bank, Philadelphia.....	4,804 87	149,788 51	4,099 48	2,023 24	2,598 67	166,692 10
Tenth Ward Bank, Pittsburg.....	9,350 25	189,515 35	2,406 07	5,236 53	2,387 53	205,975 77
Tamaqua Banking and Trust Company.....	4,892 76	96,070 49	533,611 10	2,030 34	2,989 33	130,521 88
Union Banking Company.....	295,694 87	1,237,371 46	1,066 35	2,030 34	30,393 34	2,240,533 01
Union Savings Bank, Bath.....	1,939 89	67,419 90	.....	2,030 34	554 98	76,217 65
Western Savings Bank.....	16,469 29	137,070 50	14,760 07	2,030 34	772 51	156,286 52
West Philadelphia Bank.....	28,754 59	180,285 36	2,088 14	26,399 20	10 58	250,209 80
Warren Savings Bank.....	12,527 42	189,827 22	2,088 14	20,576 40	3,066 70	228,085 88
Wilkesbarre Savings Bank.....	15,253 41	200,372 93	1,600 00	36,232 61	1,209 23	254,668 18
Wilkesbarre Deposit and Savings Bank.....	9,844 71	311,604 93	2,280 09	14,673 99	3,032 31	341,693 03
White Haven Savings Bank.....	34,913 16	12,162 50	7,065 48	2,990 34	1,763 47	58,894 95
Wayne County Savings Bank.....	5,415 29	156,336 95	17,516 08	1,407 20	1,281 52	186,599 28
Wood's Run Savings Fund and Loan Association.....	.....	50,593 51	1,575 00	13,112 54	.....	69,576 86
Youghiogheny Bank.....	5,788 19	105,593 51	1,575 00	13,112 54	1,838 44	127,907 68
	1,636,042 34	26,615,890 78	1,591,663 26	2,062,392 76	282,189 11	32,218,177 85

TABULAR STATEMENT of the Liabilities of the Banks and Savings Institutions of Pennsylvania, November, 1872.

NAME.	Capital stock actually paid in.....	Deposits	Due to banks, &c....	Surplus contingent or sinking fund....	Indebtedness or liabilities not in specifications	Aggregate.....
Ashland Savings Bank.....	\$18,350 00	\$83,182 62	\$2,834 86	\$799 45	\$7,534 07	\$112,701 00
Artisans' Deposit Bank.....	150,000 00	133,427 99	14,182 93	10,192 44	527 80	308,331 16
Ashley Savings Bank.....	14,135 00	3,864 80	11,764 85	.....	1,610 59	31,375 24
Bank of America.....	222,950 00	407,359 93	62,664 72	15,724 39	.....	708,699 04
Bank of Brandywine.....	100,000 00	160,904 96	5,199 72	.....	8,695 51	274,800 19
Bank of Pittsburg.....	1,162,650 00	611,469 97	2,388 51	314,436 64	.....	2,090,945 12
Butler Savings Bank	60,000 00	236,274 52	.....	3,388 36	9,260 59	308,923 47
Carlisle Deposit Bank	100,000 00	539,808 59	12,767 90	20,000 00	3,601 05	676,267 54
Coopersburg Savings Institution.....	8,000 00	88,032 39	6,391 74	13,126 92	.....	115,551 05
Columbia Dime Savings Bank.....	41,625 00	26,538 14	.....	3,272 45	.....	71,435 59
City Deposit Bank and Trust Company, Pittsburg.....	49,787 50	111,040 31	.....	3,575 23	1,814 00	166,217 04
Carbondale Miners' and Mechanics' Savings Bank.....	25,000 00	43,451 67	1,140 97	.....	2,706 88	72,299 52
Dauphin Deposit Bank.....	50,000 00	498,309 22	111,828 20	56,574 27	11,375 61	728,087 30
Dime Savings Institution, Bethlehem.....	10,000 00	330,303 98	9,131 96	.....	10,873 14	360,309 08
Dime Savings Institution, York.....	25,000 00	195,800 05	4,628 75	.....	11,133 33	236,862 13
Dime Saving Fund, Slatington	12,500 00	101,461 47	.....	300 00	3,853 77	120,315 24
Dollar Savings Bank, Uniontown.....	25,000 00	185,850 14	.....	2,500 00	5,905 95	224,407 97
Duquesne Savings Bank.....	100,000 00	250,008 27	115,698 51	7,651 88	480 28	475,987 32
Deposit and Savings Bank, Catawissa.....	50,000 00	34,099 91	828 38	1,000 00	13 28	85,941 57
Dollar Savings Bank, Waynesburg.....	25,000 00	7,500 75	.....	.....	.....	32,500 75
Erie Dime Savings and Loan Company.....	45,000 00	768,324 57	.....	50,790 91	.....	864,115 48
Enterprise Savings Bank, Allegheny.....	85,726 50	.....	50,470 68	1,408 96	3,873 87	141,480 01
Empire Trust Bank.....	50,000 00	165,761 17	4,017 84	1,000 00	1,141 61	221,920 62
Farmers' Savings Bank, Fogelsville.....	5,025 00	41,440 18	.....	2,109 18	.....	48,574 36
Farmers' and Mechanics' Bank, Shippensburg	63,700 00	200,805 58	17,830 55	20,084 80	.....	302,420 93
Farmers' Bank, Carlisle.....	50,000 00	116,852 63	12,883 19	.....	7,179 71	185,915 53
Franklin Savings Bank, Allentown	10,125 00	28,378 19	.....	.....	7,316 07	45,819 26
Farmers' and Mechanics' Bank, East Birmingham.....	156,694 83	128,289 92	9,228 91	14,805 64	.....	309,019 30
Freehold Bank	200,000 00	333,803 75	.....	800 25	21,710 62	556,314 62

Germania Savings Bank.....	\$45,000 00	\$377,748 50	\$5,164 11	\$19,185 07	\$12,111 55	\$459,200 26
Girard Savings Bank, Allentown.....	25,000 00	51,085 90	.....	5,000 00	4,242 11	85,328 01
German Savings Institution, Erie.....	20,000 00	296,020 77	457 85	14,964 29	.....	331,442 91
Hanover Savings Fund Society.....	50,000 00	438,209 04	9,268 34	16,155 21	130 94	513,763 53
Harmony Savings Bank.....	51,300 00	168,605 90	.....	2,041 09	.....	221,946 99
Humboldt Safe Deposit and Trust Company.....	17,110 00	270,538 72	28 04	7,368 68	3,217 50	298,262 94
Hazleton Savings Bank.....	26,000 00	90,600 61	5,330 50	3,819 79	.....	125,750 90
Hyde Park Bank.....	13,980 00	94,228 62	.....	11,192 52	1,229 34	120,630 48
Iron Bank, Philadelphia.....	50,000 00	42,893 34	80 09	3,023 43	.....	95,996 86
Iron and Glass Dollar Savings Bank.....	99,780 00	107,908 46	5,000 00	9,647 85	.....	222,335 31
Kutztown Savings Bank.....	6,000 00	41,721 75	1,538 98	7,724 17	1,629 38	58,614 28
Keystone Bank.....	197,000 00	334,945 51	57,491 68	46,989 98	.....	636,427 17
Lebanon Dime Savings Bank.....	40,000 00	215,137 83	3,658 80	.....	7,766 50	266,563 13
Littlestown Savings Institution.....	50,000 00	29,098 20	2,111 83	231 60	1,695 44	83,137 07
Lykens Valley Bank.....	47,300 00	91,144 61	25,315 06	.....	5,565 35	169,325 02
Masonic Deposit Savings Bank.....	200,000 00	361,844 05	47,296 26	12,220 37	15,057 61	636,418 29
Mechanics' Savings Bank, Pittsburg.....	.....	137,854 68	.....	7,857 45	.....	145,712 13
Millers' and Miners' Bank.....	25,000 00	34,400 86	20,989 56	55,998 75	826 91	138,216 08
Miners' Savings Bank, Wilkesbarre.....	75,000 00	294,746 61	.....	12,598 96	8,052 15	390,397 72
Miners' Savings Bank, Pittston.....	30,000 00	230,956 02	4,615 97	19,734 47	.....	283,306 46
Merchants' and Mechanics' Bank, Scranton.....	125,000 00	277,151 79	4,778 23	24,823 32	.....	431,763 34
Manayunk Bank.....	50,000 00	205,317 19	11,006 36	3,782 98	.....	272,106 54
Merchants' Bank, Easton.....	187,605 00	213,896 96	76 03	15,085 11	14,346 96	431,010 06
Miners' Trust Company Bank.....	100,000 00	1,541,139 93	137,281 50	*50,000 00	699 42	1,829,120 85
Miners' Deposit Bank, Lykens.....	30,000 00	75,865 84	4,320 31	4,042 28	.....	112,228 43
Mountain City Banking Company.....	45,550 00	88,726 16	4,794 55	6,755 18	.....	145,825 89
Mount Carmel Savings Bank.....	50,000 00	22,255 09	5,085 62	.....	1,767 19	79,107 90
Miners' Trust and Safe Deposit Company, Shamokin.....	25,150 00	.....	117,883 22	.....	5,506 43	148,539 65
Newton Banking Company.....	50,000 00	35,111 55	.....	.....	2,002 10	87,344 60
Nation's Bank for Savings.....	50,000 00	35,679 45	.....	4,993 58	.....	90,673 03
North Lebanon Savings Bank.....	15,000 00	17,794 98	5,216 61	.....	22,856 18	60,867 77
Oxford Banking Company.....	72,500 00	77,419 37	805 34	3,000 00	601 49	154,326 20
People's Savings Bank, Pittsburg.....	300,000 00	544,943 15	783 00	56,985 08	.....	902,714 23
People's Bank, Philadelphia.....	100,000 00	687,630 93	26,501 47	67,189 45	.....	881,351 85
People's Savings Institution, North East.....	5,000 00	92,362 86	.....	3,381 52	4,801 24	105,945 62
People's Savings Bank, Pittston.....	56,250 00	47,041 60	87 40	4,479 41	.....	107,858 41
Pittston Trust Company and Savings Bank.....	50,000 00	58,949 92	.....	.....	9,175 34	118,125 26
Plymouth Savings Bank.....	12,500 00	41,923 37	480 16	2,395 81	.....	57,299 34
People's Bank, Wilkesbarre.....	64,150 00	34,618 77	.....	2,218 82	.....	100,987 59
Quakertown Savings Bank.....	10,000 00	107,320 86	936 92	6,039 63	8,138 90	192,436 31
Reading Savings Bank.....	50,000 00	1,159,657 37	.....	26,443 22	.....	1,239,100 59
Real Estate Savings Bank.....	8,200 00	718,659 97	.....	56,588 68	.....	783,448 65
Stroudsburg Bank.....	89,841 50	103,497 67	6,609 36	285 52	11,178 90	211,412 95

TABULAR STATEMENT—CONTINUED.

NAME.	Capital stock actual- ly paid in.....	Deposits.....	Due to banks, &c....	Surplus contingent or sinking fund....	Indebtedness or lia- bilities not in speci- fications	Aggregate.....
Scranton Savings Bank.....	\$50,000 00	\$364,180 65	.....	\$14,003 64	.....	\$428,784 29
Shrewsbury Savings Institution.....	14,998 00	121,563 85	\$1,551 92	2,148 25	.....	140,262 02
State Bank, Harrisburg.....	32,000 00	245,268 59	53,056 90	13,162 03	\$2,003 24	345,490 16
Scranton Trust Company and Savings Bank.....	99,500 00	1,006,703 67	.....	85,511 06	.....	1,192,717 73
Safe Deposit Bank, Pottsville.....	100,000 00	662,952 62	1,670 45	5,845 04	25,581 25	796,049 36
Spring Garden Deposit and Savings Bank, Pottsville.....	103,500 00	212,853 61	20,042 92	12,391 37	.....	348,787 90
Scranton Savings Bank.....	20,000 00	74,570 28	78 46	223 98	2,739 44	97,612 16
State National Bank, Philadelphia.....	100,000 00	111,143 10	.....	.....	8,196 84	219,339 94
Shoe and Leather Savings Bank.....	99,940 00	69,275 35	10,164 78	.....	7,412 75	386,792 88
South Side Savings Bank, East Birmingham.....	137,248 25	96,887 63	366 05	480 21	27,246 05	262,228 19
Twenty-second Ward Bank, Philadelphia.....	100,000 00	48,269 27	10,702 34	7,627 49	.....	166,692 10
Tenth Ward Bank, Pittsburg.....	62,206 75	141,181 79	.....	1,590 83	.....	205,975 77
Tanawqua Banking and Trust Company.....	38,475 00	83,046 40	338 95	8,661 53	.....	130,521 88
Union Banking Company.....	200,400 00	588,740 21	1,411,164 28	40,228 52	.....	2,240,533 01
Union Savings Bank.....	15,000 00	53,238 89	.....	5,000 00	2,978 76	76,217 65
Western Savings Bank.....	76,400 00	69,816 05	.....	10,076 47	.....	156,286 52
West Philadelphia Bank.....	62,100 00	182,103 00	3,357 25	5,500 00	96 80	250,209 80
Warren Savings Bank.....	12,500 00	198,877 63	.....	.....	13,351 00	228,085 88
Wilkesbarre Savings Bank.....	75,725 00	172,368 30	13 75	7,561 13	.....	254,668 18
Wilkesbarre Deposit and Savings Bank.....	150,000 00	181,612 83	.....	9,823 20	.....	341,436 03
White Haven Savings Bank.....	6,250 00	43,917 11	5,885 99	.....	2,841 85	58,894 95
Wayne County Savings Bank.....	25,000 00	155,465 44	347 91	5,785 93	.....	186,599 28
Wood's Run Savings Fund Association.....	25,603 10	39,131 95	1,000 00	.....	3,841 81	69,576 86
Youghiogheny Bank.....	50,000 00	59,399 12	11,289 69	7,001 37	217 50	127,907 68
	7,188,331 43	29,770,193 77	2,503,138 31	1,402,306 79	345,207 55	32,218,177 85

TABULAR STATEMENT—CONTINUED.

ASSETS.			
	Total.....	\$3,773,149 22	
	Bills receivable.	\$4,000 00	
	Cash in banks and on hand..	\$190,986 29	
	Real and personal property....	\$143,882 10	
	Bonds of United States, &c.....	\$800,000 00	
	Stock in Pittsburg banks....	\$71,634 04	
	Loans on bonds, mortgages, &c..	\$2,562,646 79	
Dollar Savings Bank, Pittsburg.....		\$2,562,646 79	
Germantown Saving Fund Society.....		67,500 00	
Philadelphia Saving Fund Society.....		8,377,470 01	
Western Saving Fund Society of Philadelphia.....			
		11,007,616 80	
	Total.....	18,540,666 48	
LIABILITIES.			
	Total.....	\$3,773,149 22	
	Dower mortgage		
	Surplus.....	\$32,088 48	
	Contingent fund	\$116,916 77	
	Dividends due depositors.....	\$93,104 29	
	Amount due deposited.....	\$3,560,128 16	
Dollar Savings Bank, Pittsburg.....		432,747 02	
Germantown Saving Fund Society.....		10,894,547 24	
Philadelphia Saving Fund Society.....		2,425,891 50	
Western Saving Fund Society of Philadelphia.....			
		17,313,313 92	
		7,666 67	
		32,688 48	
		1,001,493 12	
		96,104 29	
		18,540,666 48	

STATISTICS OF RAILROADS, THEIR COST, REVENUES, ETC.

BRITISH RAILROADS—THE ENORMOUS BUSINESS TRANSACTED IN 1872.

The business of the railroads in Great Britain, in the year 1872, shows the following results, the figures being reduced to Federal money :

Authorized capital	\$2,980,118,147 00
Paid up capital	2,674,971,717 00

Length of line open to travel, 15,376 miles.

Number of Passengers carried :

First class	35,645,199
Second class	81,021,940
Third class	258,556,615
Total	<u>375,223,754</u>

NOTE—One hundred and eighty-eight thousand three hundred and ninety-two season tickets and passes are not included in these figures.

Receipts from Passengers, Freights, &c. :

First class	\$20,076,842 72
Second class	31,060,864 40
Third class	39,278,071 31
Total	<u>\$90,415,778 43</u>
Receipts from mails, express matter, etc., on passenger trains	11,545,049 68
Total freight receipts	<u>136,827,768 00</u>
Total receipts	238,788,596 11
Total expenses	<u>112,059,842 00</u>
Net receipts	<u>126,728,754 11</u>
General merchandise carried, tons	52,630,594
Minerals of all kinds carried, tons	116,734,104
From passengers, per cent	42.18
From freight, per cent	<u>57.82</u>

Or, expenses, 47.35 per cent. Net receipts, 4.7 per cent. upon paid up capital.

Number of miles run by trains :

Passenger.....	89,996,875 miles.
Freight	89,079,019 miles.

Rolling Stock :

Engines.....	10,490
Passenger cars.....	22,273
Freight and baggage cars	289,164

TABULAR STATEMENT showing the number of miles of railroad in the United States, since 1830, and the number of miles constructed, each year, since that date.

YEAR.	Miles in operation.....	Annual increase of mileage.....	YEAR.	Miles in operation.....	Annual increase of mileage.....
1830.....	23		1852.....	12,908	1,926
1831.....	95	72	1853.....	15,360	2,452
1832.....	220	134	1854.....	16,720	1,360
1833.....	380	151	1855.....	18,374	1,654
1834.....	633	253	1856.....	22,017	3,643
1835.....	1,098	465	1857.....	24,503	2,486
1836.....	1,273	175	1858.....	26,968	2,465
1837.....	1,497	224	1859.....	28,789	1,821
1838.....	1,913	416	1860.....	30,635	1,846
1839.....	2,302	389	1861.....	31,286	651
1840.....	2,818	516	1862.....	32,120	864
1841.....	3,535	717	1863.....	33,170	1,050
1842.....	4,026	491	1864.....	33,908	738
1843.....	4,185	159	1865.....	35,085	1,177
1844.....	4,377	192	1866.....	36,827	1,742
1845.....	4,633	256	1867.....	39,276	2,449
1846.....	4,930	297	1868.....	42,255	2,979
1847.....	5,598	668	1869.....	47,373	5,118
1848.....	5,996	398	1870.....	52,898	5,525
1849.....	7,365	1,369	1871.....	60,677	7,779
1850.....	9,021	1,656	1872.....	67,104	6,427
1851.....	10,982	1,961			

Aggregates of cost and earnings of railroads in the United States :

Capital stock	\$1,647,844,113—52 per cent.
Bonds and mortgages	1,511,578,944—48 “

Entire cost of railroads..... \$3,159,423,057

HISTORICAL AND FINANCIAL.

Working expenses.....	\$307,486,682—65 per cent.
Net earnings.....	165,754,373—35 “

Gross earnings 1872.....	<u>\$473,241,055</u>
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Collected from freight.....	\$340,931,785—72 per cent.
Collected from passengers	132,309,270—28 “

Total	<u>\$473,241,055</u>
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TOTAL COST, *gross and net earnings, classified in five districts.*

	Total cost.	Gross earnings.	Net earnings.
New England.....	\$230,609,794	\$48,519,835	\$14,336,481
Middle States	922,700,774	169,205,702	59,527,048
Western States.....	1,472,625,232	193,826,252	67,317,083
Southern States	401,913,267	47,788,539	16,455,490
Pacific States.....	131,573,990	13,900,727	8,018,271
	<u>3,159,423,057</u>	<u>473,241,055</u>	<u>165,654,373</u>

The increase in tonnage is shown as follows :

YEAR.	Massachusetts.	New York.	Pennsylvania.
1873.....	9,160,729	17,309,894	55,012,051
1863.....	3,708,670	5,803,955	15,745,375
Increase, 10 y'rs,	5,452,059—147 p. ct.	11,505,939—200 p. ct.	39,266,676—249 p. ct.

TABULAR STATEMENT *showing the progress of railroads in the State of Pennsylvania from 1841 to 1872, a period of thirty-two years.*

YEARS.	Miles.	Increase, miles.	YEARS.	Miles.	Increase, miles.
1841.....	754	.....	1857.....	2,081	156
1842.....	789	35	1858.....	2,340	259
1843.....	789	.....	1859.....	2,442	102
1844.....	798	9	1860.....	2,598	156
1845.....	798	.....	1861.....	2,802	204
1846.....	840	42	1862.....	3,006	204
1847.....	1,006	166	1863.....	3,171	165
1848.....	1,048	42	1864.....	3,360	189
1849.....	1,120	72	1865.....	3,728	368
1850.....	1,240	120	1866.....	4,091	363
1851.....	1,297	57	1867.....	4,311	220
1852.....	1,372	75	1868.....	4,398	87
1853.....	1,404	32	1869.....	4,598	200
1854.....	1,537	133	1870.....	4,656	58
1855.....	1,800	263	1871.....	5,113	457
1856.....	1,925	125	1872.....	5,500	387
Total increase.....		1,171	Total increase.....		3,575
Grand total increase for the period.....					<u>4,738</u>

[No. 1.]

TABLE of railroads owned, leased or operated by the Pennsylvania railroad, prepared from reports for 1872.

NAME OF COMPANY.	No. of miles of road, sidings & branches.	Capital stock actually paid in.....	Liabilities.....	Cost of road and equipment.....	No passengers carried.....	Number of tons of freight moved.....	Gross earnings.....	Expenses	Dividends.....
Allegheny Valley.....	190.80	\$2,256,400 00	\$4,825,202 80	\$10,653,410 93	779,959	1,320,289	\$2,191,488 94	\$1,257,133 41	7 p. c
Bald Eagle Valley.....	59.17	550,000 00	454,900 00	1,050,000 00	.....	.....	.....	.....	.....
Bedford and Bridgeport.....	40.55	353,860 60	1,010,000 00	984,353 36	.....	.....	.....	.....	.....
Belleville and Snow Shoe.....	28.55	600,000 00	99,000 00	457,981 33	19,633	85,422	179,798 79	69,022 09	+1.50
Berks County.....	50.	92,955 00	.....	.....	.....	.....	.....	.....	.....
Buffalo, Corry and Pittsburg.....	48.20	428,717 50	1,248,229 97	1,546,930 81	68,476	93,217	228,099 85	237,755 47	.....
Chartiers.....	22.80	638,050 00	500,000 00	1,127,312 66	.....	.....	60,436 03	39,415 83	7-10
Cleveland and Pittsburg.....	272.50	11,223,200 00	3,825,500 00	14,875,931 72	654,758	1,808,955	3,554,285 35	1,572,772 49	.....
Columbia and Port Deposit.....	4.80	208,172 11	660,457 52	868,629 63	.....	.....	.....	.....	.....
Connecting.....	6.78	1,278,300 00	991,000 00	2,278,300 00	.....	.....	.....	.....	6
Cumberland Valley.....	93.70	1,494,250 00	352,300 00	1,725,142 63	288,831	321,967	581,064 57	293,074 61	8
*Danville, Hazleton & Wilk're	11.50	684,235 00	1,560,000 00	1,102,600 00	2,599	4,048	10,368 20	6,487 38	.....
East Brandywine & Waynes'g.	17.50	136,196 26	177,000 00	309,557 82	.....	.....	.....	.....	.....
Ebensburg and Cresson.....	11.50	.....	80,000 00	122,000 00	.....	.....	.....	.....	.....
Elmira and Williamsport.....	92.	1,000,000 00	1,620,000 00	2,620,000 00	117,347	402,460	580,299 79	482,630 38	5-7
Eric and Pittsburg.....	92.75	1,099,550 00	3,327,000 00	4,923,002 51	265,985	1,141,437	1,199,112 32	556,346 46	7
Harrisburg, Portsmouth, Mt. Joy and Lancaster.....	84.	1,182,550 00	700,000 00	1,882,550 00	.....	.....	.....	.....	7
Hunting'n & Broad Top Moun.	74.25	1,300,000 00	2,270,941 09	3,159,769 02	59,126	449,748	310,914 54	187,688 46	.....
Junction.....	5.72	185,250 00	800,000 00	898,324 25	215,230	.....	.....	66,875 38	.....
Lawrence.....	21.73	289,750 00	380,000 00	637,607 32	72,942	294,444	157,653 37	67,658 46	10
Lewisb'g. Centre & Spruce C'k.	11.45	187,048 65	1,545,000 00	812,066 65	.....	.....	.....	.....	.....
Mifflin and Centre County.....	17.40	65,650 00	205,242 51	264,243 70	.....	.....	.....	.....	.....
New Castle and Beaver Valley	18.04	605,000 00	88,300 00	799,412 39	165,266	628,352	339,470 66	115,560 74	10
Newry Branch.....	1.35	11,150 00	10,778 99	22,657 31	.....	.....	.....	.....	.....
Northern Central.....	323.50	5,842,000 00	11,580,259 01	14,890,257 75	746,288	2,062,050	3,095,602 50	2,289,136 98	6
Oil Creek & Allegheny River.	155.75	4,959,450 00	3,680,000 00	9,562,877 77	-559,926	676,500	1,285,554 40	824,023 39	6½

TABULAR STATEMENT, (No. 1.)—CONTINUED.

NAME OF COMPANY.	No. of miles of road, sidings & branches.	Capital stock actu- ally paid in.....	Liabilities.....	Cost of road and equipment.....	No. passengers car- ried.....	Number of tons of freight moved.....	Gross earnings.....	Expenses.....	Dividends.....
Pennsylvania.....	6.17	\$53,271,937 50	\$33,039,846 15	\$42,450,207 68	5,250,393	7,844,779	\$22,012,525 27	\$13,764,673 09	10
Pennsylvania and Delaware..	23.	483,297 50	700,000 00	1,200,000 00	.....	.....	.....	.....	.....
Philadelphia and Erie.....	401.90	8,450,000 00	15,303,966 00	21,139,470 00	839,793	2,028,568	3,980,752 87	3,980,752 87	10
Philadelphia and Trenton	36.35	1,259,100 00	.....	1,534,478 76	1,561,080	1,124,640	1,759,758 14	.....	.....
Philadelphia, Wilmington and Baltimore.....	136.97	11,485,750 00	2,060,303 63	11,890,736 59	1,747,195	449,780	2,734,138 99	1,625,660 10	8
Pittsburg, Cinn. and St. Louis	236.50	8,433,550 00	11,853,625 34	18,835,787 08	611,201	1,429,115	3,856,648 72	2,996,806 08	.....
Pitt'g. Fort Wayne & Chicago.	576.70	22,214,285 71	13,637,229 62	26,867,636 80	2,106,251	2,408,162	9,780,310 35	5,272,846 05	7
Pitt'g. Virginia & Charleston..	14.10	618,564 11	.....	709,310 46	4,000	22,392	842 95	15,556 89	.....
Shanokin Valley & Pottsville	32.50	869,450 00	1,988,000 00	1,569,450 00	44,597	683,631	309,361 86	184,622 83	6
South Mountain Iron Comp'y	17.78	.....	377,500 00	386,808 66	20,986	53,987	37,826 65	17,863 47	.....
Stony Creek.....	10.	134,675 00	82,313 62	216,955 36	.....	.....	.....	.....	.....
Summit Branch.....	30.50	2,502,250 00	145,000 00	988,902 37	17,769	523,539	322,986 00	76,040 43	6
Sunbury and Lewiston	45.	500,000 00	1,400,000 00	1,900,000 00	.....	.....	.....	.....	.....
Tyrone and Clearfield.....	43.50	510,000 00	332,359 99	842,359 99	.....	.....	.....	.....	.....
Western Pennsylvania.....	99.33	1,022,450 00	2,823,554 70	3,846,004 90	.....	.....	.....	.....	.....
Total.....	4,027.29	148,427,054 94	125,734,810 94	211,953,008 21	16,219,631	25,917,482	58,701,685 44	36,000,403 25	.....

* For two months. † Per share.

[No. 2.]

TABLE of railroads owned, leased or operated by the Philadelphia and Reading R. R. Co., prepared from reports for 1872.

NAME OF COMPANY.	Number of miles of road, sidings and branches.....	Capital stock actually paid in.....	Liabilities.....	Cost of road & equipment.....	Number of passengers carried.....	Number of tons of freight moved.....	Gross earnings.....	Expenses.....	Dividends.....
Allentown	4.80	\$568,744 47	\$613,032 50	\$1,054,629 39	104,662	389,120	\$1,788 98		3½
Catawissa *	105.50	4,359,500 00	1,740,350 00	6,126,500 00			572,104 76	\$382,999 27	12
Chester Valley	23.50	871,900 00	990,000 00	2,371,900 00					
Chestnut Hill	4.62	120,650 00		120,650 00					
Colebrookdale	14.50	47,165 00	673,709 84	663,976 78					
East Mahanoy	14.46	392,550 00		391,603 93					6
East Pennsylvania	51.50	1,309,200 00	495,900 00	1,484,290 12					6
Little Schuylkill Naviga' and Coal Co.,	51.20	2,646,100 00	759,500 00	1,416,187 80			271,435 90	185,785 57	7
Mill Creek & Mine Hill N. & R. R. Co.,	20.92	323,375 00		323,375 00					
Mine Hill and Schuylkill Haven		3,969,100 00		3,969,100 00					7
Mount Carbon and Port Carbon	12.10	282,350 00		282,815 45					12
Perkiomen	21.24	37,890 00	1,159,484 61	4,091,624 47					
Philadelphia and Reading	324.90	34,236,175 28	29,342,169 00	42,293,340 52	6,383,991	10,981,657	12,125,038 11	5,869,486 02	10
Phila., Germantown and Norristown	34.25	2,231,900 00		1,514,800 01			287,816 30		12
Pickering Valley	11.70	92,125 00	462,352 67	472,837 77			4,281 72		
Plymouth	11.62	12,050 00	274,495 19	274,495 19					
Reading and Columbia	59.25	507,268 09	2,093,494 59	2,282,652 94	118,812	340,171	260,606 47	221,284 97	
Schuylkill and Susquehanna	63.33	1,269,150 00	1,109,787 62	1,283,490 25	+16,961	+252,821	+94,371 39	+95,612 78	
Schuylkill Valley Nav. and R. R. Co.,	27.10	576,050 00		576,840 94					5
	856.49	53,853,242 84	38,714,276 02	66,995,110 56	6,624,426	11,993,769	13,617,443 63	6,755,168 61	

* Ten months. † Five months and nineteen days.

[No. 3.]

TABLE of railroads not controlled by the Pennsylvania or Reading railroad companies.

	No. of miles of road, sidings and branches,	Capital stock actually paid in.	Liabilities.....	Cost of road & equipment...	No. of passengers carried..	No. of tons of fr't moved...	Gross earnings	Expenses	Dividends.....
Atlantic and Great Western...	531.16	\$24,000,000 00	\$56,992,240 00	Unknown.	913,800	2,691,098	\$5,451,899 90	\$4,596,229 65	.....
Barelay coal company, (leased to Towanda coal company) ..	21	4,000,000 00	79,000 00	"	17,175	392,847	36,934 47	104,389 36	7
Buffalo, Bradford and Pittsburgh (leased to Erie railway co.)...	28	2,286,000 00	583,000 00	\$2,869,000 00	.....	.....	.....	.....	.....
Buffalo, New York and Phila...	93.86	1,600,707 74	2,307,271 08	3,064,271 03	.....	.....	.....	.....	.....
Catsaugua and Fogelsville...	32	426,900 00	.....	742,156 64	25,000	409,669	149,780 24	77,143 88	6
Chester-Creek, (leased to Philadelphia and Baltimore Cen'l)	8	185,000 00	185,000 00	370,000 00	.....	.....	.....	.....	6
Cowanessque Valley, (leased to Fall Brook coal company) ..	11.22	300,000 00	.....	414,877 49	.....	304,508	87,636 78	37,371 25	8
Cornwall	78	.....	.....	4,331,136 89	144,431	2,504,009	100,120 56	1,050,013 77	.....
Delaware and Hudson C. & R.R.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dillsburg and Mechanicsburg...	135	20,000,000 00	100,000 00	15,512,767 38	249,578	3,347,671	4,746,677 70	1,878,713 47	10
Delaware, Lackawanna & West'n	58.30	1,266,000 00	9,633,544 73	2,770,565 53	65,948	43,036	109,262 45	107,198 18	.....
Dunkirk, Warren and Pittsb'g,	555.75	86,536,910 00	1,589,907 65	108,807,687 26	3,588,800	5,564,274	18,305,027 41	13,013,219 32	7
Erie .....	.....	.....	28,912,301 26	.....	.....	.....	.....	.....	*4 0)
Fayette County, (leased to Pittsburg and Connellsville rail'd)	13.41	125,395 71	.....	130,000 00	.....	.....	.....	.....	3
Frankfort and Holmesburg	4.88	100,000 00	55,342 36	159,427 07	.....	.....	.....	.....	10
Hanover Branch	12.20	116,850 00	.....	269,371 88	34,401	123,424	82,387 91	55,316 31	.....
Harrisburg and Potomac .....	.....	102,720 00	.....	130,105 00	.....	.....	.....	.....	.....
Homer, Cherry Tree & Susque'a	.....	8,544 60	4,201 24	12,745 84	.....	.....	.....	.....	.....
Ironton	13	400,000 00	100,000 00	268,000 00	.....	115,876	48,864 82	30,247 67	.....
Jamestown & Franklin, (leased to Lake Shore & M. S. r'y co.)	65.50	605,027 50	1,974,436 90	2,483,001 87	99,881	332,481	270,764 55	162,458 73	8 & 10
Jefferson, (leased to Erie r'y co.)	45.50	2,095,700 00	2,300,000 00	4,395,700 00	.....	.....	.....	.....	.....
Lancaster & Reading Nar. G'ge.	.....	15,672 00	.....	.....	.....	.....	.....	.....	.....
Lackawanna and Bloomsburg,	96	1,335,000 00	2,449,261 13	4,121,244 12	362,294	2,213,010	1,083,475 27	583,352 71	.....
Lake Shore and Mich. South'n,	1,270.61	50,000,000 00	35,167,523 53	66,114,676 24	1,992,273	4,382,243	17,591,629 46	11,471,029 81	8 & 10
Lehigh & Lac., (l'd to N.J. Cen.)	15	375,100 00	300,000 00	675,100 00	18,320	29,828	35,141 68	36,223 53	.....

Lehigh and Sus., (l'd to N. J. C'l)	212.25	21,468,800 00	12,462,781 25	489,713	2,879,447	2,431,291 46	1,821,894 04
Lehigh Valley.....	363.33	100,000 00	19,750,425 49	967,850	6,307,604	5,982,949 48	3,869,686 98
Little Saw Mill Run.....	4	100,000 00	115,261 48		157,102	53,528 49	26,888 79
Littlest'n, (op'd by Han.Br'r'w)	10.50	34,850 00	115,616 00	7,618	18,388	11,185 31	6,714 88
Lykens Valley, (leased to Sum- mit Branch railroad company	20	600,000 00	595,727 24				10
Muncy Creek)	6.25	123,600 00	148,640 00	8,433		7,493 33	3,125 50
Mt. Pleasant & Br. Top, (leased to Pittsb'g & Connellsv'e r'd.)	10.60	112,550 00	43,482 64				
Nesquehoning Valley, (leased to N. J. Cent.railroad com'y.)	20.25	1,300,000 00	1,206,385 40				10
North Pennsylvania.....	90.40	3,473,500 00	8,295,709 25	889,571	880,119	1,336,938 36	744,616 73
Pit-Hole Valley.....	8	250,000 00	117,131 93	9,800	12,854	20,483 36	26,716 98
Peach Bottom.....	135.67	32,881 05	25,263 14				
Pa. & N. Y. canal and rail'd co.,	125.87	3,561,700 00	5,715,239 98	190,300	1,268,531	1,608,286 97	1,171,151 73
Pennsylvania Coal.....		4,000,000 00	2,000,000 00	8,486	1,376,772	23,033 14	413,700 00
Philadelphia and Newtown.....		74,760 00					20
Phila. & Balt. Cent., (leased to Phila., Wil'n & Balt. rail'r'd.)	52	220,606 11	1,983,952 70	315,515	134,307	295,594 18	190,389 09
Pitts'g and Connellsv'e, (leased to Balt. & Ohio railway co.)	160.02	1,960,682 45	12,285,397 89	781,994	980,780	1,437,391 66	1,536,381 60
Selinsgrove and North Branch,		2,680 00					
Shenango and Allegheny.....	34	199,000 00	978,280 00	16,170	56,220	58,849 02	22,206 22
Somerset and Mineral Point.....	9.35	55,000 00	140,000 00	18,000	8,530	12,055 15	9,155 81
Southwark, (leased to Phila., Wilmington and Baltimore.)	1.72	58,468 00	58,468 00				6
Sullivan & Erie coal and r'd co., (l'd to Pa. & N. Y. can.&r'd co)	26	1,400,000 00	1,597,718 14			37,180 78	119,737 83
Susqueh'a, Gettysb'g & Potomac	17.25	1,500,000 00	181,000 00	28,477	19,267	31,110 09	22,955 22
Toga.....	38.10	580,900 00	1,285,013 85	93,170	865,431	468,322 69	211,850 62
Trescow, (leased to N. J. Cent.)	7.50	130,000 00	60,003 64				
Uniontown and West Virginia, Wellsboro' and Lawrenceville, (leased to Fall Brook coal co.)	28.25		80,114 50				
West Chester, (leased to West Chester and Phila. rail'r'd co.)	39.80	1,000,000 00	913,289 00	29,141	27,130	12,818 41	250,250 00
West Chester and Phila. r'd co.)	9.50	155,000 00	205,486 79				
West Chester and Phenixv'e.....	31.30	681,100 00	1,509,317 43	821,911	93,448	336,939 07	186,640 66
West Chester and Phenixv'e.....		13,000 00					
Wilmington and Western.....	22.22	244,380 00	552,799 00	1,813	1,998	5,802 47	6,248 96
Wilmington and Reading.....	80.80	759,062 88	2,440,910 43	132,365	264,573	228,773 25	137,106 08
Wheeling, Pittsb'g and Balt.....	33	500,000 00	79,641 65	53,175	11,637	48,164 58	49,584 07
	4,686.32	237,434,048 01	177,706,725 44	12,383,412	37,818,112	62,547,884 43	43,589,912 43

* Per share. + Scrip dividend.

[No. 4]
 TABLE of Passenger Railways, compiled from reports of companies for 1872.

NAME OF COMPANY.	Miles of road laid...	Capital stock actual- ly paid in.....	Liabilities.....	Cost of road and equipment.....	No. passengers car- ried.....	Gross earnings.....	Expenses.....	Dividends.....
Allentown.....	3	\$36,600 00	\$10,000 00	\$33,427 88	131,249	\$11,589 85	\$6,842 44	6
Citizens', Philadelphia.....	7 $\frac{1}{4}$	192,750 00	.....	212,320 14	5,089,857	281,024 44	196,245 53	*\$7 00
Coalville.....	2.87	53,500 00	1,000 00	45,436 41	99,235	10,993 31	7,645 42	5.6
Citizens', Pittsburg.....	5 $\frac{1}{2}$	184,009 00	54,000 00	270,670 80	3,232,343	184,298 81	105,933 46	5.6
Empire.....	7 $\frac{3}{4}$	.....	153,000 00	102,000 00	1,712,404	102,704 21	89,583 63	.....
Easton and South Easton.....	1 $\frac{3}{8}$	29,562 00	.....	25,962 50	179,991	10,946 54	7,625 91	5
Erie City.....	2 $\frac{1}{8}$	19,807 00	22,341 73	36,996 98	242,011	13,288 31	11,104 01	.....
Frankford and Southwark, Philadelphia.....	13	498,200 00	290,500 00	844,171 55	5,421,326	368,134 69	276,997 08	7
Federal Street and Pleasant Valley.....	3	66,250 00	90,000 00	32,842 02	715,263	45,737 22	36,645 74	.....
Germantown, Philadelphia.....	25	307,545 00	350,000 00	562,270 00	5,063,044	370,775 26	246,606 12	6
Green and Coates Street, Philadelphia.....	7	150,000 00	100,000 00	244,441 56	2,723,251	180,268 30	136,568 12	*\$4 00
Harrisburg City.....	2	41,994 77	14,104 75	60,249 55	143,703	7,185 35	7,629 81	.....
Hestonville, Mantua and Fairmount, Phila.....	11	299,423 61	127,100 00	388,466 69	4,228,444	272,610 28	201,168 89	*\$1 10
Lombard and South Street, Philadelphia.....	4.51	150,000 00	62,500 00	170,402 57	1,450,000	99,104 15	63,199 74	11.5-7
Philadelphia City, Philadelphia.....	12	225,000 00	229,397 00	454,397 11	5,289,426	347,283 36	239,650 64	*\$4 00
Philadelphia and Darby, Philadelphia.....	5	200,000 00	.....	257,000 00	.....	.....	100 00	8
Philadelphia and Gray's Ferry, Philadelphia.....	10 $\frac{3}{8}$	290,175 00	6,500 00	299,126 68	2,600,000	124,472 89	85,722 05	*\$2 75
Pittsburg, Allegheny and Manchester.....	4 $\frac{3}{4}$	200,000 00	48,336 00	161,752 24	2,630,442	149,066 14	94,345 43	+
Pittsburg and Birmingham, Pittsburg.....	3 $\frac{1}{4}$	120,000 00	61,549 55	136,239 01	1,250,024	71,062 16	70,412 41	.....
Pittsburg, Oakland and East Liberty.....	5	130,000 00	72,636 60	125,448 81	565,404	42,595 85	36,236 94	.....
Pittsburg and Ormsby.....	2 $\frac{1}{4}$	100 000 00	41,616 53	83,487 08	641,888	37,238 42	44,537 94	.....
People's Street, Luzerne county.....	9 $\frac{1}{2}$	.....	.....	140,387 29	433,662	36,447 61	23,045 63	2 $\frac{1}{2}$
People's Schuylkill county.....	6	45,830 00	37,868 76	85,724 94	197,381	9,095 72	17,068 90	.....
Ridge Avenue, Philadelphia.....	13	336,000 00	89,772 00	414,512 12	3,850,000	244,658 90	179,174 19	*\$4 00
Schuylkill River.....	3.10	50,000 00	.....	47,463 54	.....	.....	.....	10
Second and Third Street, Philadelphia.....	36	621,576 25	.....	706,254 95	7,653,120	506,545 10	363,271 63	10
Seventeenth and Nineteenth Street, Phila.....	6 $\frac{3}{4}$	160,000 00	110,306 72	186,693 64	2,242,373	152,406 19	115,939 38	.....

Thirteenth and Fifteenth Street, Phila.....	8	334,529 44	.....	227,326 35	2,816,590	155,697 64	118,116 62	*\$1 50
Union, Philadelphia.....	30	400,000 00	500,000 00	1,032,513 66	9,741,579	622,502 73	597,301 96	* 5 00
Union Street, Warren county.....	1 1/4	16,187 03	.....	16,187 03	.....	.....	.....	.....
West Philadelphia, Philadelphia.....	11 1/2	400,000 00	100,000 00	591,348 36	7,800,000	443,477 37	341,188 18	7 8
Wilkesbarre and Kingston.....	4 1/8	100,000 00	.....	94,833 37	307,550	23,551 46	14,617 00	4
Williamsport.....	2 1/4	40,600 00	7,705 31	41,452 21	276,809	13,836 55	8,616 91	.....
	260.48	5,754,530 60	2,577,234 95	8,131,807 04	77,828,469	4,938,598 81	3,743,141 71	.....

*Per share. †Stock dividend, \$60 00 (contingent fund.)

[No. 5.]
TABLE of *Telegraph Lines compiled from reports of companies for 1872.*

NAME OF COMPANY.	Length of main line in miles.....	Length of line in Pennsylvania.....	Capital stock actu- ally paid in.....	No. messages sent during year.....	No. messages rec'd. during year.....	Gross receipts of en- tire line.....	Gross receipts in Pennsylvania.....	Gross expenses of entire line.....	Gross expenses in Pennsylvania.....	Dividends.....
Atlantic and Ohio	9.17	917	\$650,000 00	Unknown	Unknown	† \$237,656 41	† \$22,800 00	† \$198,000 00	† \$21,000 00	.....
Franklin	7.50	30	1,000,000 00	709,832	713,006	455,193 18	153,000 00	463,492 81	155,000 00	.....
Pacific and Atlantic	4.528	875	1,982,900 00	† 723,262	723,262	41,517 58	41,517 58	51,290 48	51,290 48	.....
Philadelphia, Reading and Pottsville	* .101	623	20,000 00	137,563	137,563	8,830,168 53	613,698 17	5,958,546 49	524,190 93	.....
Western Union	63.000	3,500	41,074,700 00	† 11,516,500	11,516,500	9,564,535 70	831,015 75	6,671,329 81	751,481 41	.....
Total.....	69,296	5,945	44,727,600 00	13,087,157	13,090,431					.....

* From Philadelphia to Pottsville.

† Included in report of Western Union Telegraph Company lessees.

‡ Exclusive of regular press reports.

[No. 6.]
TABLE OF CANALS, compiled from reports of companies for 1872.

NAME OF COMPANY.	Length of line and branches.....	Capital stock actually paid in.....	Liabilities.....	Cost of canal and fixtures.....	Gross amount of tonnage.....	Gross earnings.....	Expenses.....	Dividends.....
Delaware and Hudson.....	108.	*\$15,000,000	\$13,000,000 00	\$7,064,791 17	1,869,557	\$326,383 35	\$86,370 51	10
Delaware Division †.....	60.	1,633,350	800,000 00	2,433,350 00	.....	.....	.....	8
Junction.....	18.	399,000	.....	530,636 69	.....	.....	.....	.....
Lehigh Coal and Navigation.....	48.	8,784,850	15,767,655 88	3,000,000 00	1,041,891	213,230 60	506,059 99	9
Monongahela Navigation.....	83.	1,004,150	110,000 00	1,146,038 69	.....	53,726 58	196,149 18	.....
Muncy.....	75.	2,625	.....	6,831 52	9,262	34 56	217 96	.....
Pennsylvania.....	359.	4,457,150	2,588,000 00	Unknown..	†967,574	†696,598 16	†556,163 84	.....
Schuylkill Navigation.....	110.23	4,385,798	267,197 86	10,587,125 74	1,200,181	299,836 97	661,540 41	1.2
Susquehanna.....	45.	2,002,746	163,810 60	4,857,104 80	426,393	47,910 86	99,151 20	.....
Union.....	85.64	2,907,850	35,000 00	5,907,850 00	124,961	37,741 06	44,861 76	.....
West Branch and Susquehanna.....	129.	1,100,000	295,218 82	.....	.....	.....	.....	.....
	933.62	41,677,519	49,166,780 03	35,533,728 61	5,639,819	2,151,114 85	1,675,471 14	.....

* Canal and railroad combined.

† Leased to Lehigh Coal and Navigation.

‡ Including West Branch and Susquehanna.

N. B.—I have no means of even approximately estimating the value of coal lands held by the Reading Coal and Iron Company; the Delaware and Hudson; the Delaware, Lackawanna and Western; the Pennsylvania Coal Company; in fact by nearly all the corporations operating in either the Anthracite or Semi-Bituminous coal regions of eastern Pennsylvania. These tracts of coal lands, however, are held as incidental to the railroad companies, and I have therefore, from the best information I could obtain, estimated their value at eighty millions of dollars, and tabularized them as part and parcel of the railroad capital of the State.

RAILROAD CONSTRUCTION AND COMPLETION.

The rapidity with which our railroads have been constructed and the active competition grown up between our great trunk lines are beyond doubt the marvelous problems of this age.

Pennsylvania, last to enter upon the race, has for some years taken the lead of all the other railroad centres upon the Atlantic coast. The whole that has been done upon these subjects has been accomplished under my own eyes and others of like age. Yet Rome, in her palmyest days, (outside of her army,) never witnessed organizations to be compared in power with the Pennsylvania and Reading railroads. The former carries our name—Pennsylvania—from the Atlantic to the Pacific, and the latter, more concentrated, has grasped the control of the great anthracite coal district of the world. Each in her domain, is becoming a power, for good or evil, more potent than either State or National Government.

We do not deem it our province to deprecate this concentration of power, or to philosophize how it may be controlled. These corporations, as now organized, ante-dated our Bureau. Their existence we recognize as facts—facts, too, having a direct bearing upon the future of our great State. We rejoice that both these powerful corporations derive their chartered existence from Pennsylvania, and both have their principal officers in her commercial metropolis. We rejoice that their leading business managers are loyal to our State, and the peers in intellect and energy to any others in this age of progress.

We have not attempted to reproduce the tables from the Auditor General's report, but only to give such an abstract of statistics as will give to the general reader some idea of the past progress and present development of railroads in their bearing upon the future of Pennsylvania.

The accompanying tables show the aggregate cost of railroads and equipment, as per railroad report:

No. 1. Pennsylvania and allied roads.....	\$211,953,008 21
2. Reading railroad and branches.....	66,995,110 56
3. General railroads.....	293,347,015 68
4. Passenger railroads.....	8,131,807 04
5. Telegraph lines.....	44,727,600 00
6. Canals.....	35,333,728 61
6. Coal lands owned by railroad companies.....	80,000,000 00
	<hr/>
	740,488,270 10
	<hr/>

Abstract from the estimates of the preceding tables, showing the cost of construction and equipment of the various railroads, telegraphs and canals *within the State of Pennsylvania*:

No. 1. Railroads owned, leased or operated by Pennsylvania railroad	\$140,837,262 00
2. Railroads owned, leased and operated by Philadelphia and Reading railroad.....	66,995,110 56
3. Railroads independent of Pennsylvania railroad and Philadelphia and Reading railroad.....	64,139,168 00
4. Passenger railways	8,131,807 04
5. Telegraphs	5,659,167 38
6. Canals	28,151,219 62
6. N. B.—Value of coal lands in anthracite and semi-bituminous regions held by corporations (estimated)	80,000,000 00
The entire cost of above improvements within the State,	<u>393,913,734 60</u>

OUR COLLEGES AND ACADEMIES.

The following lists contain eighteen colleges and twenty-three academies, from which returns have been made, and I have no doubt there are several of the former, and certainly a large number of the latter, from which no returns were received. In the early history of our State these colleges and academies received occasional appropriations from the State Treasury to aid them. Since, however, the State has fully embarked in the support of common schools, the constitutional power of the Legislature to aid the higher branches of education has been stoutly denied. The late Constitutional Convention has now, however, extended the authority of the Legislature, and our Superintendent of Common Schools is hereafter to be known as Superintendent of Public Instruction. It is, therefore, a necessary consequence that academies, colleges and universities are all to fall within the scope of State supervision.

In view of this, some criticism upon the past may not be amiss. Our first remark is that we have had too many of what are called *sectarian colleges* in this State. The clergy of the various denominations, prior to the introduction of common schools, had almost exclusive charge of education. Each was so tenacious of the peculiarities of his own creed that nearly all our colleges are sectarian in their organization. The legitimate consequence has been that our colleges have arisen very little above the grade of first class academies. We cannot point to a single one whose endowments, the number of its professors and teachers are such that we could point to it as the representative of the State. Our sons and our daughters have been sent to New England schools to hear New England institutions extolled and Pennsylvania sneered at. We want to see, on the contrary, at least one university endowed with the means, officered by professors of such renown, and attended by students in such numbers that all can point to it as our representative school; that it may do for our State what Oxford has done for old England and Harvard for New England.

Of our eighteen colleges, fourteen of them are sectarian in their organization. One of them, the Girard College, is a specialty for the education of orphans; and another, the Agricultural College, has its own specialty. This leaves only two, the University of Pennsylvania and the Western University, founded on a basis broad enough to invite all to their halls. If the State, under the new Constitution, undertakes the control of education generally, then we scarcely know what part these fourteen sectarian colleges shall occupy. Time will have to work out that problem.

These colleges as organized in the past, with about four exceptions, have excluded all females from their course of instruction. Now, if they become subject to State supervision, why should this be continued? God in his providence, which is wiser than ours, has caused families to consist of males and females; and the State in her common schools has educated both sexes together, even in her high schools, where education is essentially the same as our colleges impart. Why then, I ask, cannot our colleges and even our universities, when we have them organized worthy of the name, open to the young of both sexes all the advantages of instruction in science, art and literature alike?

STATISTICS OF COLLEGES, 1870.

NAME.	LOCATION.	Date of foundation..	Total number of graduates.....	No. of professors and tutors.....	Whole number of students.....	Estimated total yearly expenses.....	No. of volumes in library.....	Value of apparatus..	Income from invested funds, rents, &c.	Income from tuition,
Agricultural College.....	Centre county.....	1854,	.....	10	150	\$256	1,500	.....	.....	.....
Allegheny College.....	Meadville.....	1815,	512	7	100	200	11,050	\$18,000	\$30,000 00	.....
Dickinson College.....	Carlisle.....	1783,	1,120	6	99	225	25,663	5,000	890 00	.....
Franklin and Marshall College.....	Lancaster.....	1853,	493	8	76	214	13,000	1,500	13,494 46	\$700 50
Girard College.....	Philadelphia.....	1848,	738	20	550	.....	5,000	5,000	7,000 00	250 00
Haverford College.....	Haverford.....	1832,	214	5	44	425	8,750	8,000	266,141 00	.....
Lafayette College.....	Easton.....	1826,	471	26	235	285	8,000	.....	4,980 62	.....
Lebanon Valley College.....	Annuille.....	1867,	11	7	163	200	1,000	.....	.....	5,150 00
Lehigh University.....	Bethlehem.....	1866,	14	14	117	235	2,000	.....	.....	.....
Muhlenberg College.....	Allentown.....	1867,	42	7	146	250	3,000	900	.....	5,800 00
Pennsylvania College.....	Gettysburg.....	1832,	503	19	145	210	18,300	7,700	6,180 00	5,300 00
Swarthmore College.....	Swarthmore.....	1869,	.....	20	250	360	1,500	800	.....	.....
University of Pennsylvania.....	Philadelphia.....	1753,	.....	28	641	.....	5,000	30,000	24,583 82	20,207 36
University of Lewisburg.....	Lewisburg.....	1847,	213	7	150	200	5,050	3,000	7,500 00	5,500 00
Washington and Jefferson College.....	Washington.....	1802,	2,964	11	151	250	8,000	6,000	12,000 00	.....
Waynesburg College.....	Waynesburg.....	1850,	218	14	276	200	1,200	1,300	.....	.....
Western University.....	Pittsburg.....	1819,	347	14	179	375	2,600	24,000	3,498 90	11,032 75
Westminster College.....	N. Wilmington.....	1852,	392	5	193	200	3,000	5,000 00	160 00

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STATISTICS of Academies, Seminaries and Female Colleges.

NAME.	LOCATION.	No. of instructors...	Whole No. of pupils,	Number of males...	Number of females,	Number of volumes in library.....	Value of apparatus..	Cost of tuition per year.....	Cost of board per week.....	Value of buildings and grounds.....
Allentown Female Seminary.....	Allentown.....	8	84	...	84	200	...	\$88 00	\$4 00	\$40,000
Beaver College and Musical Institute.....	Beaver.....	8	185	58	127	600	300	25 00	5 00	20,000
Blairsville Ladies' Seminary.....	Blairsville.....	6	74	...	74	500	300	...	...	15,000
Chambersburg Academy.....	Chambersburg.....	6	94	94	...	500	100	40 00	4 50	40,000
Classical Academy.....	Reading.....	2	134	134	...	...	600	30 00	5 00	...
Cottage Hill Female College.....	York.....	9	72	...	72	200	500	45 00	3 50	30,000
Cumberland Valley Institute.....	Mechanicsburg.....	4	30	30	...	500	100	...	...	18,000
Eldersridge Academy.....	Eldersridge.....	2	69	54	15	560	100	35 00	3 50	2,500
English and Classical Institute.....	Stewartstown.....	1	30	14	16	...	...	30 00	3 00	1,000
Greenwood Seminary.....	Millville.....	2	120	70	50	...	200	25 00	3 00	6,000
Laird Institute.....	Murrysville.....	2	41	26	15	...	400	30 00	3 00	1,500
Missionary Institute.....	Selinsgrove.....	4	111	111	...	4,300	200	27 00	3 00	1,800
Moravian Seminary.....	Bethlehem.....	30	245	...	245	4,500	800	40 00	4 00	100,000
Mount Dempsey Academy.....	Landisburg.....	1	41	26	15	...	30	20 00	3 00	40,000
Nazareth Hall.....	Nazareth.....	14	137	137	...	5,000	600	...	...	100,000
Pennsylvania Military Academy.....	Chester.....	11	143	143	...	1,200	1,000	...	...	...
South-Western Normal School.....	California.....	5	288	152	136	...	320	24 00	3 75	60,000
Treemount Seminary.....	Norristown.....	7	121	120	1	1,000	300	54 00	5 00	30,000
University Female Institute.....	Lewisburg.....	10	116	...	116	700	1,000	36 00	3 50	40,000
Washington Female Seminary.....	Washington.....	8	115	...	115	300	350	38 00	4 00	10,000
Wilson Female College.....	Chambersburg.....	10	101	...	101	750	1,000	60 00	5 00	90,000
Witherspoon Institute.....	Butler.....	4	104	69	35	...	400	25 00	3 50	12,000
Wyoming Seminary.....	Kingston.....	15	125	125	...	1,500	2,000	30 00	4 00	125,000

GIRARD COLLEGE FOR ORPHANS.

The general impression throughout the State has heretofore been that the benefits of this college were exclusively confined to the orphans of the city of Philadelphia. A careful examination, however, of the annual report of the Directors of the City Trusts for 1872 demonstrates not only that all male orphans of the State have not only the right—but are even urged to be presented to the office for admission. I have, therefore, concluded to give such a sketch of the institution as may enable persons in various parts of the State to arrange for the admission of orphans to the benefits of this college.

Stephen Girard, a merchant of Philadelphia, died in December, 1831, leaving a large portion of his estate to that city *in trust* to endow a college for the support and education of male white orphans. By the terms of the will a preference is given in admission. *First*, to orphans born in the old city of Philadelphia. *Second*, to those born in any other part of Pennsylvania. *Third*, to those born in the city of New York, and lastly to those born in the city of New Orleans. The college was opened in 1848, and has just completed its first quarter of a century.

During that time it has received as pupils 1,698 orphan boys, and indentured 747; all these have been natives of Pennsylvania, and very nearly all of the city of Philadelphia. Of late, however, they have begun to receive from the State outside of the city. In 1872 only 20 were received from the city and 80 from the State. President Welsh, in his report thinks that at no distant day the institution can support and educate from 1,200 to 1,500 boys. If this be so most of the orphan boys of this State can be cared for from the proceeds of this magnificent bequest. I give an abstract gleaned from several of its reports:

Income from Girard estate. Taxes paid.	Expenditures on College.	Number of students.	Cost per scholar.
1868	\$135,650 59	510	274
1869	163,819 78	510	320
1870, \$224,795	149,903 70	533	320
1871, 229,423	165,566 14	533	281
1872, 248,825	191,660 80	546	311
1873, 266,141	.....	.....	325

The above will enable each one to form some idea of the operations of this Girard College. The Board of City Trusts are canvassing the propriety of erecting a number of what are called family buildings to accommodate each, say 40 scholars.

If their own calculations are at all realized of sustaining double the number of inmates now in the institution, then they ought to admit at least 200 annually, of which three-fourths, or 150, ought to be from the State outside of Philadelphia.

All persons from distant parts of the State desiring information in regard to the admission of orphan boys should address

HENRY W. AREY,

No. 19. South Fifth St., Philadelphia.

SOLDIERS' ORPHAN SCHOOLS.

The maintenance and education of the orphans of soldiers and sailors of Pennsylvania, whose lives were sacrificed in the suppression of the late rebellion, constitutes one of the brightest pages of her history. She entered upon this undertaking in advance of all other States, and her expenditures have been on a magnificent scale. And yet, so far as we are aware, no murmur has ever been raised by the tax-payers to the wisdom of this expenditure. The limitation by law to sixteen years of age has already caused a large number to be discharged from the schools. The maximum number of schools has undoubtedly been reached, but a reduction in numbers must hereafter be the rule from year to year. The schools, however, cannot be entirely closed until 1881-2.

The commencement of this noble charity originated in a donation of \$50,000 made by the Pennsylvania railroad during the darkest hours of the rebellion, to aid Gov. Curtin in paying bounties to volunteers. It was not immediately used by Gov. Curtin for that purpose, owing to doubts suggested as to the propriety of his expending, in his official capacity, any other than State funds. But at a later period, with the assent of the donors and under the sanction of a joint resolution of the Legislature, he appointed T. H. Burrowes, of Lancaster, to organize a system for the maintenance and education of the orphans of soldiers and sailors of the rebellion. This was in June, 1864. The following winter the Legislature appropriated \$75,000 to carry on the work. This has been largely increased from year to year. The whole number cared for by the State up to October 1, 1872, was 6,429. The number in the schools in 1872 was 3,527. The cost of the system in 1872 was \$475,245 47, and the estimate for 1873, \$450,000. The entire expenditure to October, 1872, was \$3,500 00, and before the whole children are cared for, not less than \$2,000,000 additional will be required.

And yet the people of the State have cheerfully contributed all this, recognizing it as a duty to take care of the children whose fathers offered up their lives that their country might live.

We annex a list of the schools containing the orphans ; also of homes, these orphans composing only a part of the inmates of the homes

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STATISTICS of Orphans' Schools and Homes.

SCHOOLS.

SCHOOL.	COUNTY.	Number received in school.....	Number discharged on age.....	Number discharged on order.....	Number died.....	No. IN SCHOOL, MAY 31, 1872....		
						Males.....	Females.....	Total both sexes.....
Andersonburg	Perry	154	1	2	3	67	54	121
Bridgewater.....	Bucks.....	210	34	19	15	77	62	139
Cassville	Huntingdon	449	158	51	3	116	101	217
Chester Springs.....	Chester.....	410	138	44	1	123	74	197
Dayton.....	Armstrong.....	365	114	19	2	127	93	220
Emaus.....	Dauphin.....	72	2	11	2			
Harford.....	Susquehanna.....	361	147	27	10	102	56	158
Industrial School.....	Philadelphia.....	25	5	1	1		16	16
Lincoln Institution	do	143	24	19	4	87		87
Mansfield	Tioga	263	61	6	2	115	76	191
M'Alisterville.....	Juniata.....	549	170	70	11	118	96	214
Mercer	Mercer.....	229	19	3	3	111	87	198
Mt. Joy	Lancaster.....	498	141	55	4	146	81	227
Phillipsburg	Beaver.....	441	117	64	2	107	70	177
Soldiers' Orphans' Institution in connection with Northern Home.....	Philadelphia.....	419	9	73	3	153	98	251
Titusville	Crawford.....	351	90	40	5	113	88	201
Uniontown.....	Fayette	305	90	39	2	108	59	167
White Hall	Cumberland	440	114	77	10	153	70	223
Total.....		6,998	1,767	726	94	1,833	1,195	3,028

HOMES.

HOME.	LOCATION.	Number received in school.....	Number discharged on age.....	Number discharged on order.....	Number died.....	No. IN SCHOOL, MAY 31, 1871.		
						Males.....	Females.....	Total both sexes.....
Catholic Home.....	Philadelphia.....	29	3	6			18	18
Children's Home	York.....	66		2		20	24	44
Church Home.....	Philadelphia.....	48	2	10		2	25	27
Episcopal Church Home.....	Allegheny	42	1	4		9	12	21
Home for Friendless.....	Lancaster.....	174	2	3	6	23	16	39
Home for Friendless.....	Wilkesbarre	136		19	4	18	22	40
Loysville Orphan Home	Perry.....	231		3	1	49	28	77
Orphans' Asylum.....	Lancaster.....	15	1				13	13
Orphans' Farm School.....	Zelienople	4	1			2		2
Orphans' Home.....	Germantown.....	73		13		2	2	4
Orphans' Home.....	Rochester.....	7	1			1	5	6
Orphans' Home.....	Womelsdorf	121	13	15		38	27	65
P. and A. Home for Friendless.....	Allegheny	53		5		8	6	14
P. and A. Orphan Asylum.....	do	228	2	23	6	25	29	54
St. John's Orphan Asylum.....	Philadelphia.....	49	6	17	4	18		18
St. Paul's Orphan Asylum.....	Allegheny	27	3			3	2	5

HOMES—CONTINUED.

HOME.	LOCATION.	Number received in school.....	Number discharged on age.....	Number discharged on order.....	Number died.....	NO. IN SCHOOL, MAY 31, 1873.		
						Males.....	Females....	Total both sexes.....
St. Paul's Orphan Home.....	Butler	46	2	4	1	28	7	35
St. Vincent's Asylum.....	Philadelphia.....	16	6	3	....	4	3	7
St. Vincent's College.....	Westmore'd	9	4	....	....	2	....	2
Training School for F. M. C. ..	Delaware ...	11	3	....	....	6	1	7
Orthopædic Hospital.....	Philadelphia	1	....	....	....	....	1	1
Total for homes.....	.....	1,387	50	127	22	259	240	499
Total for schools.....	.....	6,998	1,767	726	94	1,833	1,195	3,028
Total for both.....	.....	8,385	1,817	853	116	2,092	1,435	3,527

HOMES, HOSPITALS AND ORPHAN ASYLUMS.

I annex a list in tabular form of the homes, hospitals, orphan asylums and other charitable institutions of the State. These are almost entirely the product of private benevolence, and have been built and sustained very largely by the various religious organizations of the State. A very few of them had formerly received appropriations from the State, mainly on the score of having supported orphans of the soldiers of the late rebellion. The organization of the Soldiers' Orphans' schools have now relieved them and such of them as contain soldiers' children are paid in the usual manner, and the remainder of them are sustained entirely by local charity. We doubt if any other State of the Union can show a record of such a number of schools for the friendless; homes to care for the orphans and the widow; hospitals to heal the sick; care for the disabled and smooth the pillow of the dying.

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ASYLUMS AND CHARITABLE INSTITUTIONS AT PITTSBURG—1872.

NAME OF INSTITUTION.	Location.	Organ- ized.	Denomination.	Capacity.	Total patients relieved.	Total real estate.	State appropri- ation.
Allegheny Widows' Home Association, Boarding Home for Working Women.	Pittsburg	1866, 1871,	Public charity		85	\$30,000	
Temporary Home for Destitute Wom'n,	do	1868,	Women's Chris- tian Associat'n,	32		11,000	
Home for Protestant Aged Women.	do	1870,				39,000	
Sheltering Arms.	do	1870,				75,000	
Orphans' Home and Farm School.	do		Lutheran.				
Pittsburg & Alleghy Home for Friendl's,	do	1862,	Public charity			36,000	
Prof. Orph. Asylum of Pittsb'g & Alle.,	do	1834,	Public charity	300		100,000	
St. Paul's Roman Catholic Asylum.	do	1840,	Roman Catholic.			160,000	\$12,000
The Little Sisters of the Poor.	do	1869,			118	75,000	
Church Home Association of Pittsburg,	do	1859,	Episcopal			50,000	
Mercy House	do	1870,	Roman Catholic.				
Young Men's Home and Bethel.	do	1866,	Public charity			50,000	
German Catholic Orphan Asylum.	do	1852,	Roman Catholic.			50,000	
House of Industry.	do	1854,	St. Peter's Ro. C.,	300		40,000	
<i>Pittsburg Hospitals:—</i>							
Pittsburg Infirmary	Pittsburg	1849,	Lutheran	150	3,000 in aggr't,	60,000	8,000
St. Francis' German Hospital.	do	1860,	Roman Catholic.	86	423	80,000	
Homoeopathic Medical and Surg. Hos- pital and Dispensary of Pittsburg.	do	1866,	Public charity		1,070 in aggr't,	56,000	
Mercy Hospital.	do	1847,	Roman Catholic.	200	140	40,000	18,000
Western Penn Hospital.	do	1848,	Public charity		140	350,000	19,000

ASYLUMS AND CHARITABLE INSTITUTIONS FOR FEMALES AT PHILADELPHIA—1872.

NAME OF INSTITUTION.	Location.	Organ- ized.	Denomination.	Capacity.	Total patients relieved.	Total real estate.	State appro- priation.
Indigent Widows and Single Women	Philadelphia	1819,	Roman Catholic.				\$11,000
St. Ann's Widows' Asylum.	do	1849,	Episcopal.			\$17,000	
St. Luke's Home.	do	1852.					
Penn Asylum of Philadelphia.	do	1865					
Boarding Home for Young Women	do	1867,	Episcopal.				
Bishop Potter's Memorial House.	do	1870,	Public charity.			House,	20, 196
Women's Christian Association.	do	1872,	Presbyterian.				90,000
The Presbyterian Home	do	1795,	Friends Society.				
Female Society of Philadelphia.	do	1819,	Jewish			7,000	
Female Hebrew Benevolent Society.	do	1846,				10,000	
Western Asso. for Relief and Employ'm't	do	1852,		20		12,000	
Temporary Home Association.	do		Episcopal.				
Trustees of Clergy's Daughters Fund.	do	1868,	Public charity.			18,000	
Penn Industrial Home for Blind Women	do						
<i>Miscellaneous Charitable Institutions.</i>							
The Ladies Depository Association	Philadelphia	1833,				9,000	
The Central Employment Association	do	1857,					
Female Association for Sick and Infirm,	do						
The Orph. Home and Asylum for Aged,	do						
Ladies Aid Society.	do	1859,	Lutheran			60,000	4,000
The Baptist Home.	do	1867,	Methodist.				
Philadelphia Society.	do	1869,	Baptist.			Build'g	65,000
Young Men's Home	do					Cost,	30,000
Old Man's Home.	do	1864.				31,000	
Union Benevolent Association.	do	1832.					
Northern Association of City and County	do	1845.					

MISCELLANEOUS CHARITABLE INSTITUTIONS.

NAME OF INSTITUTION.	Location.	Organ-ized.	Denomination.	Capacity.	Total patients relieved.	Total real estate.	State appropri-ations.
Orphans' House of Sheph'd of the Lambs	Womelsdorf.	1863,	Reformed.	.....	107	\$45,000	
St. Paul's Orphans' Home.	Butler	1867,	Lutheran.	.....	18	35,000	\$5,000
Home of the Friendless.	Harrisburg.	1850,	.....	.....	.....	7,000	9,000
Bishop Bowman's Church Home.	Lancaster.	1858,	Episcopal	.....	.....	41,042	13,000
Home for Friendless Children.	.....do	1848,	.....	.....	.....	5,000	1,500
St. James' Orphans' Asylum.	Wilkesbarre.	1862,	Episcopal.	16	.....	25,000	6,000
The Home for Friendless Children.	York.	1865,	.....	.....	.....	15,000	
The Orphans' Home of York.	Zelienople	1854,	.....	.....	.....	43,000	
The Orphans' Farm School	Rochester.	1864,	Lutheran	40	.....	25,000	
The Orphans' Home, Rochester.	Erie.	1866,	.....do	.....	.....	52,000	
St. Joseph's Orphan Asylum.	Philadelphia.	1843,	.....	.....	73	22,650	
Pennsylvania Seaman's Friend Society,	.....do	1834,	.....	.....	*25,000	10,000	
Philadelphia Ass'n for Relief of Firemen	Media.	1867,	.....	.....	*1,075		
Penn Sanitarium	Philadelphia.	1869,	.....	20	.....	
Home for Friendless.	.....	.....	.....	.....	.....
<i>Asylums and Homes and Relief Ass'ns for Colored Persons and Freedmen:—</i>							
Association for Colored Persons	Philadelphia.	1822,	Friends.	50	68	26,000	4,000
Home for Destitute Colored Children	.....do	1856,	.....	.....	.....
Home for Aged and Infirm Col'd Pers'ns	.....do	1864.	.....	.....	.....
Freedmen's Relief Association.	.....do.	.....	.....	.....	.....
Germanatown Freedmen's Aid.	.....do.	.....	.....	.....	.....
Friends' Ass'n for Relief of Freedmen.	.....do.	.....	.....	.....	.....
Friends' Ass'n for Elevat'n of Freedmen	.....do.	.....	.....	.....	.....
Women's Branch of Freedmen's Relief,	.....do.	.....	.....	.....	.....

* Since organized.

HOMES AND ORPHAN ASYLUMS—PHILADELPHIA.

NAME OF INSTITUTION.	Location.	Organ- ized.	Denomination.	Capacity.	Total patients relieved.	Total real estate.	State appro- priation.
St. Joseph's Female Orphan Asylum...	Philadelphia.	1796, 1814,	Roman Catholic.	.....	.....	\$23, 150	\$5, 000
Philadelphia Orphans' Society	do.	.....	Pres. Epis. & Fr'nds	120	.....	110, 000	9, 000
St. John's Male Orphan Society	do.	.....	Roman Catholic.	340	.....	.....	4, 500
Foster Home Association	do.	1838,	.....	.....	124	84, 250	2, 000
Union School and Children's Home	do.	1849,	.....	.....	164	21, 000	1, 000
Western Provident Society	do.	1857,	.....	.....	91	.....	75, 000
The Northern H. for Friendless Children	do.	1853,	Public.	.....	257	120, 000	.....
Jewish Foster Home Society	do.	1855,	Jewish.	35	.....	.....	.....
St. Vincent's Home	do.	1855,	Roman Catholic.	.....	.....	.....	*1, 000
Union Temporary Home	do.	1856,	.....	60	.....	.....	.....
Industrial Home for Girls	do.	1869,	.....	30	.....	20, 900	.....
St. Vincent's Orphan Asylum	do.	1857,	Roman Catholic.	250	.....	.....	.....
The Burd Orphan Asylum	do.	1861,	Episcopal.	100	.....	200, 000	†400, 000
Day Nursery for Children	do.	1863,	.....	.....	.....	.....	†1, 800
Soldier's Home	do.	1864,	.....	.....	.....	.....	.....
Home for Little Wanderers	do.	1865,	.....	.....	116	11, 000	3, 000
Catholic Home for Destitute Children.	do.	1863,	Roman Catholic.	.....	114	.....	.....
Lincoln Institution	do.	1866,	.....	.....	154	76, 200	.....
Newsboy's Home Association	do.	1869,	.....	.....	.....	24, 000	.....
Aimwell School Association	do.	1796,	Orthodox Friends,	.....	.....	23, 150	.....
Home Missionary Society	do.	1845,	.....	.....	.....	.....	.....
Bedford Street Mission	do.	1853,	Meth. Episcopal	.....	.....	14, 000	.....

*City annual appropriation.

†Mrs. Burd's bequest.

‡Annual contribution.

BENEVOLENT SOCIETIES AND REFORMATORIES—1872.

NAME OF INSTITUTION.	Location.	Organ- ized.	Denomination.	Capacity.	Total patients relieved.	Total real estate.	State appropri- ation.
Society of Sons of St. George.....	Philadelphia.....	1805.	.....	340 mem.	.....	† 35,000 00	.....
French Benevolent Society.....	do.....	1764,	.....	.....	.....	65,000 00	.....
German Society.....	do.....	1869,	Jewish.....	302 sch'rs	.....	11,700 00	.....
United Hebrew Charities.....	do.....	1790,	.....	.....	.....	† 33,759 45	.....
Hibernia Society.....	do.....	1749.	.....	.....	.....	.....	.....
St. Andrew's Society.....	do.....	.....	.....	.....	.....	.....	.....
Swiss Benevolent Society of Phil'a.....	do.*.....	.....	.....	.....	.....	.....	.....
The Welsh Society.....	do.....	.....	.....	.....	.....	.....	.....
Magdalen Society.....	do.....	1801,	Episcopal.....	1,500 *	.....	125,000 00	.....
House of the Good Shepherd.....	do.....	1848,	Roman Catholic.....	604 *	.....	.....	.....
Howard Institution.....	do.....	1823,	Friends.....	.....	.....	18,000 00	.....
Rosine Association.....	do.....	1862.	.....	.....	.....	8,000 00	.....
Midnight Mission.....	do.....	1868,	.....	.....	.....	8,500 00	.....
Benificent Building Association.....	do.....	.....	.....	.....	.....	.....	.....
Franklin Reformatory for Inebriates.....	do.....	1872.	.....	.....	.....	.....	.....
<i>Hospitals for the Insane:—</i>							
Friends' Asylum.....	Philadelphia.....	.....	.....	.....	.....	† 85,000 00	.....
Penn Hospital for Insane, (Kirkbride,).....	do.....	1751,	.....	.....	.....	1,000,000 00	.....
Wilkesbarre Hospital.....	Wilkesbarre.....	.....	.....	.....	.....	.....	.....
Pennsylvania Hospital for Insane.....	Harrisburg.....	1851,	.....	.....	.....	250,000 00	\$679,710 00
Dixmont Insane Hospital.....	Pittsburg.....	1858,	.....	.....	.....	925,000 00	670,428 50
Danville.....	Danville.....	1870,	.....	.....	.....	.....	500,000 00

* Since organized. † Permanent fund. ‡ Lot and building.

HOSPITALS, INFIRMARIES AND DISPENSARIES.

NAME OF INSTITUTION.	Location.	Organ- ized.	Denomination.	Capacity.	Total patients relieved.	Total real estate.	State appro- priation.
Pennsylvania.....	Philadelphia..	1751,	.....	*88,453 †151	800	.....	\$20,000
Philadelphia Orthopaedic.....	do	1868,	.....	.....	180	.....	.....
The Philadelphia Ear and Eye Infirmary.....	do	1870,	.....	.....	.....	48,500	5,000
Homoeopathic Hospital.....	do	1871,	.....	.....	.....	400,000	.....
Presbyterian Hospital.....	do	1871,	Presbyterian..	145 since org.	.....	¶130,000	.....
Christ Church Hospital.....	do	1772,	Episcopal.....	.....	.....	52,000	.....
The Women's Hospital.....	do	1860,	.....	.....	3,059 since org.	21,400	.....
The Preston Retreat.....	do	1836,	.....	99 inmates.	502	.....	.....
Phila. Lying In and Nurse Charity.....	do	1832,	.....	.....	.....	.....	.....
Wills Hospital.....	do	1833,	.....	40 inmates.	.....	312,100	6,500
St. Joseph's Hospital.....	do	1849,	Rom. Catholic	250	.....	¶200,000	10,000
Protestant Episcopal Hospital.....	do	1851,	Prot. Episco'l,	.....	.....	300,000	10,000
Howard Hospital.....	do	1854,	.....	.....	6,953 since org.	10,000	Bequest 10,000
Charity Hospital.....	do	1858,	.....	.....	.....	10,800	.....
German Hospital.....	do	1860,	.....	.....	.....	27,080	.....
Jewish Hospital Association.....	do	1865,	Jewish.....	65	.....	20,000	.....
St. Mary's Hospital.....	do	1860,	Rom. Catholic	86	.....	30,000	.....
Children's Hospital.....	do	1855,	.....	50	.....	55,581	.....
Germantown Dispensary and Hospital,	do	1864,	.....	.....	.....	15,280	.....
Philadelphia Dispensary.....	do	1786,	.....	.....	†14,748 §1,548	150,000	.....
Southern Dispensary.....	do	1816,	.....	.....	.....	10,000	.....
Northern Dispensary.....	do	1816,	.....	.....	.....	30,000	.....
South-Western Dispensary.....	do	1872,	.....	.....	.....	.....	.....
Dispensary for Skin Diseases.....	do	1871,	.....	.....	500	.....	.....
					400	.....	.....

* Inmates since organized. † At present, ‡ Treated. § Relieved. ¶ Buildings cost.

REFORMATORY INSTITUTIONS.

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STATISTICS of Churches in the State of Pennsylvania, showing the number of edifices, accommodation and valuation of property held by each denomination.

NAME.	EDIFICES.			ACCOMMODATION.			PROPERTY.		
	1850.	1860.	1870.	1850.	1860.	1870.	1850.	1860.	1870.
All denominations.....	3,566	5,337	5,668	1,574,873	2,112,929	2,332,288	11,586,115	22,581,479	52,758,384
Presbyterian.....	788	997	1,008	364,406	431,763	423,830	2,602,800	4,835,760	12,113,750
Methodist.....	902	1,573	1,271	342,226	547,782	446,463	1,727,138	3,669,953	7,510,675
Episcopal, (Protestant).....	136	203	234	67,574	98,917	94,182	1,483,700	2,926,700	6,703,067
Roman Catholic.....	139	271	319	89,251	152,926	187,115	1,084,204	2,933,440	6,675,050
Lutheran.....	499	730	841	262,702	290,547	339,128	1,682,656	2,399,637	6,474,022
Reformed Church in U. S., (late Ger. Ref'd.)	209	474	657	105,562	193,482	270,885	1,648,110	1,831,425	3,746,320
Baptist, (regular).....	320	402	371	128,458	149,709	178,210	811,195	1,434,320	3,157,500
Friends.....	142	141	118	61,274	61,585	43,725	62,287	1,238,750	1,764,700
Evangelical Association.....	8	.....	233	2,300	.....	80,545	8,800	.....	712,800
Jewish.....	8	12	14	3,425	3,295	7,750	45,700	154,300	681,000
Christian.....	22	69	69	7,050	21,960	27,500	24,400	115,240	584,100
Baptist, (not regular).....	99	208	218	30,330	70,070	110,100	94,400	258,741	537,800
United Brethren in Christ.....	14	.....	183	4,650	.....	60,860	18,600	.....	489,300
Moravian, (Unitas Fratrum).....	84	23	16	32,715	11,750	9,000	221,350	130,750	401,000
Congregational.....	18	34	36	5,200	11,081	14,450	31,300	68,850	318,200
Reformed Ch. in America, (late Dutch Ref.)	10	11	10	6,140	5,750	5,300	96,700	185,250	298,000
Universalist.....	21	27	18	9,483	11,200	6,725	86,800	136,400	288,500
New Jerusalem, (Swedenborgian).....	4	10	7	1,600	3,000	1,950	13,200	71,000	78,000
Unitarian.....	4	3	4	1,630	1,250	2,050	28,000	26,200	68,800
Miscellaneous.....	28	.....	7	10,697	.....	2,500	92,900	.....	63,200
Unknown, (Union).....	106	144	27	36,650	45,753	7,450	93,375	161,993	51,900
Unknown, (Local Mission).....	3	.....	4	2,000	.....	1,875	26,800	.....	28,500
Second Advent.....	2	4	3	550	900	725	1,700	1,470	11,500
Mormon.....	.....	1	.....	.....	200	.....	.....	1,300	.....

NEWSPAPER and Periodical circulation in the United States.

YEAR.	Newspapers and periodicals.	Copies annually printed.	Population.
1704	1	16,000	600,000
1725	4	170,000	1,000,000
1775	37	1,200,000	2,800,000
1810	359	22,321,700	7,239,814
1828	852	68,117,796	12,000,000
1835	1,258	90,361,000	14,000,000
1840	1,631	995,838,673	17,069,453
1850	2,526	426,409,978	23,191,876
1860	4,051	927,951,548	31,445,080
1870	5,871	1,508,548,250	38,555,753
1874	6,458	1,659,403,075	42,411,328

NUMBER of publications with their circulation and annual issue, in the
United States, in 1870.

	Number.	Copies annually issued.	Circulation.
Daily.....	574	806,479,570	2,681,547
Three times a week.....	107	24,196,380	155,105
Semi-weekly.....	115	25,708,488	247,197
Weekly.....	4,295	550,921,436	10,594,643
Semi-monthly.....	96	32,395,680	1,349,820
Monthly.....	622	67,810,116	5,650,843
Bi-monthly.....	13	189,900	31,650
Quarterly.....	49	846,680	211,670
Total.....	5,871	1,508,548,250	20,842,475

CLASSIFICATION of publications.

	Number.	Copies annually issued.	Circulation.
Advertising.....	79	4,689,800	293,450
Agricultural and horticultural.....	93	21,541,904	770,752
Benevolent and secret societies.....	81	6,518,560	257,080
Commercial and financial.....	142	31,120,000	690,200
Illustrated, literary & miscellaneous.....	503	160,061,408	4,422,235
Nationality, devoted to.....	20	4,671,000	45,150
Political.....	4,333	1,134,789,082	8,781,220
Religious.....	407	125,959,496	4,764,358
Sporting.....	6	3,212,000	73,500
Technical and professional.....	207	15,974,080	744,320
Total.....	5,871	1,508,548,250	20,842,475

STATISTICS of newspapers and periodicals, showing the number of, and circulation of each in the State of Pennsylvania, at the censuses of 1850, 1860 and 1870.

	ALL CLASSES.					
	NUMBER.			CIRCULATION.		
	1850.	1860.	1870.	1850.	1860.	1870.
Copies issued annually.....	84,898,672	116,094,480	241,170,540			
Daily	24	29	55	162,635	233,550	466,070
Tri-weekly	2	1	3	500	3,900	10,000
Semi-weekly.....	1	3	2	600	9,800	17,700
Weekly.....	261	297	385	526,142	700,961	1,214,395
Semi-monthly	19		11	290,500		825,100
Monthly.....		28	73		464,684	846,750
Bi-monthly.....			3			8,550
Quarterly.....	2	6	8	1,900	6,800	31,200
Annual.....	1	3		2,500	13,000	

STATISTICS of Libraries in the State of Pennsylvania.

CLASS AND KINDS.	1850.		1860.		1870.	
	Number.	Volumes.	Number.	Volumes.	Number.	Volumes.
All classes.....	393	263,400	1,416	1,344,624	14,849	6,377,845
Not private—total.....					4,966	3,049,247
State.....					1	30,000
Town, city, &c.....					39	28,586
Court and law.....					29	24,051
School, college, &c.....	51	94,211	67	172,802	115	267,223
Sabbath school.....	226	58,071	764	339,414	3,916	1,696,640
Church.....	26	26,452	56	71,409	732	420,559
Historical, literary and scientific societies.....					18	202,600
Benevolent and secret associations.....					30	49,435
Circulating.....	90	184,666	529	761,299	86	330,153
Public, not specified.....						

STATISTICS of school attendance and illiteracy in the State of Pennsylvania, at the censuses of 1850, 1860 and 1870.

STATE OF PENNSYLVANIA.	1850.			1860.			1870.		
	Total.	Native.	Foreign born.	Total.	Native.	Native born.	Total.	Native.	Foreign born.
Attending school.....	504,610	488,823	157,87	669,961	648,051	21,310	725,004	706,717	182,88
Cannot read.....							131,728		
Cannot write, persons 10 years of age and upwards.....							222,356		
Cannot read and write, persons 20 years of age and upwards.....	76,272	51,283	24,989	81,515	44,930	36,585		126,803	95,553

STATISTICS of pauperism and crime in the State of Pennsylvania, at the censuses of 1870, 1860 and 1850.

CENSUS.	POPULATION.			PAUPERISM.			CRIME.		
	Total.....	Native	Foreign	Number of persons supported during the year ending June 1, 1870.....	Cost of annual support.....	Receiving support, June 1, 1870.	Number of persons convicted during the year ending June 1, 1870.....	Total....	Native..
						Foreign,			Foreign,
						Native..			Native..
						Total....			Total....
Census of 1870,	3,521,951	2,976,642	545,309	15,872	1,256,024	8,796	3,327	3,231	2,532
Census of 1860,	2,906,215	2,475,710	430,505	16,463	665,396	4,822	2,930	1,161	2,756
Census of 1850,	2,311,786	2,006,207	303,417	11,551	232,138	4,495	857	411	296

OUR PRISONS, PENITENTIARIES AND JUVENILE REFORMATORIES.

We have, in Pennsylvania, county jails, intermediate county prisons, State penitentiaries and houses of refuge. William Penn, in his great law of December, 1862, declared "that all prisons should be work-houses," but in what sense and for what purpose? One school of philosophers say that work-houses are mainly for the *reformation* of their inmates, and another will tell you they are intended to *remunerate society* for the expense of the trial and conviction of the criminal. Both these objects, to a greater or lesser degree, have undoubtedly been regarded in the enactment of our criminal laws, and no other State has furnished so many earnest reformers, laboring to make better and wiser the inmates of our prisons. In fact, in the amelioration of the criminal code, Pennsylvania has always been in advance of her sister States. Here, her Penn's and her Franklin's have always made reformation the key note of their criminal legislation. In several of the other States their penitentiaries have been self-supporting. In ours, however, about 33 per cent. of the cost of maintenance has been about the extent of return realized from the labor of our convicts. There may have been an occasional exception, but candor compels us to admit that financial success has not been the strong point of our penitentiary system. In fact, the separate system which confines labor to the cell of the convict only allows a narrow range of industrial pursuits, and these not of a paying character. Labor saving machinery is year by year still further narrowing the circle, and possibly the time is not distant when its abandonment is inevitable. This unproductiveness of such labor has caused other States to resort to the congregate, instead of the separate system, and even to its half-way abandonment in the Western Penitentiary of this State, until the Eastern Penitentiary alone enforces its observance. Our business is to state facts, not to promulgate theories.

In regard to our county prisons, juvenile reformatories and penitentiaries, I have endeavored to furnish a partial list of their number and the leading statistics pertaining thereto. We have a county jail in each county, primarily intended to detain, prior to trial, persons charged with crime. Of course, in that stage, these are all entitled to the presumption of innocence, and are, therefore, not the proper subjects to be required to labor, and hence no income can be expected from them. In some fifteen to twenty of the large and wealthy counties of the State a combination of county jail and work house has been erected, to which the judges

sentence, after conviction, the great body of minor offenders. Such an institution in each county would reduce by more than one-half the number of inmates in our penitentiaries. The remarkable success of the new work house in Allegheny county, which, in the second year of its administration has nearly paid its whole expenses, will undoubtedly lead to other kindred intermediate prisons.

We also annex an abstract of our two leading juvenile reformatories, heretofore known as the Eastern and Western Houses of Refuge. The Western one will hereafter be known as the Pennsylvania Reform School, and is about being removed to a farm in the country. It will be hereafter conducted upon what is known as the family system—that is, the inmates will be sub-divided into families of say fifty each, under the supervision of a chief, all however, to be amenable to the general superintendent. This system also seeks to control the children entirely by moral suasion, and abandons all high walls, bolts and bars.

The final list of our prisons concludes with the Eastern and Western Penitentiaries. These, as most persons know, have heretofore been conducted on the separate system, and the Eastern one still strictly adheres to that plan. The construction of the Western Penitentiary never was such as to enforce the isolation contemplated by that system. The Legislature in 1869 permitted the inspectors in their discretion to have the convicts or portions of them congregated “for the purposes of labor, learning and religious services.” That institution is, therefore, now conducted partly on the separate and partly on the congregate system. The inspectors think that it has lost nothing as a reformatory agent, and in many other respects has been decidedly improved by this change.

PENITENTIARIES, Houses of Refuge, Asylums, &c.

PENITENTIARIES.	Opened	Acres of ground	Value of real estate.....	Value of im- provements..	Salaries of offi- cers.....	Expenses of maintenance,	Whole No. of prisoners.....	Average.....
Eastern.....	1829,	13	\$1,600,000	\$716,620 00	\$27,000 00	\$76,978 00	840	610
Western.....	1827,	7½	300,000	628,607 42	24,350 00	52,971 00	599	423
Houses of Refuge:—								
Eastern.....	1823,	.....	200,000	523,500 00	18,370 86	70,111 31	1,239	728
Pennsylvania Reform School.....	1850,	15	250,000	150,000 00	16,500 00	25,321 69	256	242
New location.....	.....	505	87,500	250,000 00				
Asylums:—								
Blind.....	1833,	{ Lots on Race, Summer and 21st streets.	100,000	200,000 00	12,709 00	66,955 76	183	
Deaf and Dumb.....	1821,	{ Broad & Pine sts., 2 acres.	150,000	125,000 00	18,440 42	52,873 25	227	
Training School:—								
For Feeble Minded Children, Media.....	1853,	89	40,000	169,618 00	12,500 00	48,500 00	180	

COUNTY PRISONS.

NAMES OF COUNTIES.	Management. Sheriff or inspector.	When erected.	Cost.	No. of cells.	Articles manufactured.	Annual cost per capita.	County appropriation.
Adams.....	14	.....	.....	.....
Allegheny.....	1868,	.....	50	.....	\$89 42½	\$9,432 56
Allegheny work-house.....	1868,	\$500,000 00	400	.....	Income, \$43,247 13,	.....
Armstrong.....	1871,	100,000 00	24	Barrels, bricks, &c.....	leaving cost per	.....
Beaver.....	1856,	54,000 00	28	.....	capita about \$12.	.....
Bedford.....	Matron.....	1855,	.....	5	.....	.....	1,000 00
Berks.....	Under keeper.....	1847-66,	136,580 00	91	{ Ingrain, rag and ve- nitian carpet weav- ing, boot and shoe making. }	\$79 75	33,989 31
Blair.....	1868,	.....	28	.....	.....	.....
Bradford.....	Sheriff's wife.....	1849,	65,000 00	4	.....	182 50	1,211 50
Bucks.....	1812,	.....	9	.....	.....	.....
Butler.....	1867,	30,000 00	6	.....	.....	.....
Cambria.....	1870,	78,000 00	28	.....	.....	.....
Cameron.....	1867,	13,000 00	4	.....	.....	.....
Carbon.....	1850,	66,700 00	28	.....	.....	.....
Centre.....	1857-68,	54,000 00	20	.....	200 00	.....
Chester.....	Keeper.....	1838,	38,182 00	48	{ Caning, spooling, broom making, weaving carpet & cloth. }	125 00	5,300 00
Clarion.....	1840,	.....	6	.....	.....	.....
Clearfield.....	1841,	.....	3	.....	.....	.....
Clinton.....	1842,	.....	4	.....	.....	1,600 00
Columbia.....	1847,	3,400 00	4	.....	.....	.....
Crawford.....	1849,	.....	16	.....	.....	.....
Cumberland.....	45,000 00	36	.....	.....	.....
Dauphin.....	1841,	.....	40	.....	.....	.....
Delaware.....	Inspector or keeper,	1851-67,	.....	38	{ Carpet and cloth weaving, broom and shoe making. }	153 30	4,532 75
Elk.....	1847,	2,700 00	4	.....	.....	.....
Erie.....	1869,	50,000 00	36	.....	.....	.....
Fayette.....	1854,	.....	16	.....	182 50	.....
Forest.....	1868,	8,000 00	6	.....	.....	.....
Franklin.....	1818,	.....	8	.....	.....	.....
Fulton.....	1851,	4,000 00	4	.....	.....	.....
Greene.....	1836,	.....	2	.....	.....	300 00
Huntingdon.....	Co. commissioners..	1826,	.....	2	.....	.....	1,000 00

COUNTY PRISONS—CONTINUED.

NAMES OF COUNTIES.	Management. Sheriff or inspector.	When erected.	Cost.	No. of cells.	Articles manufactured.	Annual cost per capita.	County appropriation.
Indiana.....	.....	1839,	.....	5	.....	\$182 50	\$400 00
Jefferson.....	.....	1856,	\$20,000 00	20	.....	.....	.....
Junata.....	.....	1833,	.....	6	.....	.....	.....
Lancaster.....	Keepers.....	1850,	.....	80	{ Carpet and bagging } { weaving, segar, net } { and shoe making. }	328 50	27,295 71
Lawrence.....	.....	1850,	28,000 00	8	.....	.....	.....
Lebanon.....	.....	1814-60,	.....	14	.....	.....	.....
Lehigh.....	Inspectors.....	1867,	200,000 00	40	Carpet weaving.....	240 00	3,500 00
Luzerne.....	Keepers.....	.....	250,000 00	72	.....	.....	.....
Lycoming.....	.....	1867,	125,000 00	39	.....	.....	.....
M'Kean.....	.....	1848,	3,000 00	4	.....	.....	.....
Mercer.....	Keeper.....	1868,	70,000 00	12	.....	.....	.....
Minlin.....	Matron.....	1856,	23,500 00	20	.....	.....	.....
Monroe.....	.....	1837,	.....	8	.....	.....	.....
Montgomery.....	.....	1851,	.....	40	Shoe making.....	165 00	10,600 00
Montour.....	.....	.....	.....	4	.....	.....	.....
Northampton.....	.....	1868,	150,000 00	52	.....	.....	.....
Northumberland.....	Keeper.....	.....	.....	6	.....	182 50	.....
Perry.....	.....	1825,	.....	6	.....	.....	.....
Philadelphia.....	Matron.....	1831,	.....	506	Boot and shoe making,	.....	.....
Pike.....	.....	1814,	.....	2	.....	130 00	152,619 35
Potter.....	.....	1869-70,	33,500 00	8	.....	.....	.....
Schuylkill.....	Keeper.....	1851,	125,000 00	38	{ Shoe making, weav- } { ing, preparing } { yarn for weaving, }	135 00	13,963 51
Snyder.....	.....	.....	.....	.....	.....	60 00	.....
Somersot.....	.....	1856-57,	2,500 00	4	.....	.....	.....
Sullivan.....	.....	1852-53,	.....	9	.....	.....	.....
Susquehanna.....	.....	1850,	2,500 00	4	.....	.....	.....
Tioga.....	.....	1867,	33,897 13	16	.....	.....	.....
Union.....	Sheriff.....	1861,	14,000 00	8	.....	209 00	1,750 00
Venango.....	.....	1854,	.....	7	.....	.....	500 00
Warren.....	Keeper.....	1865,	37,000 00	20	.....	150 00	5,566 00
Washington.....	.....	1864,	.....	15	.....	.....	.....
Wayne.....	.....	1867,	70,000 00	9	.....	.....	.....
Westmoreland.....	.....	1857,	.....	8	.....	.....	.....
Wyoming.....	.....	1855,	18,000 00	20	.....	.....	.....
York.....	.....	1868,	60,000 00	6	.....	.....	.....
	.....	1853,	.....	35	.....	.....	.....

SUPPORT AND EMPLOYMENT OF THE POOR.

William Penn, in the 36th section of his great law, passed at Chester on the 7th day of October, 1682, enacted "That if any persons shall fall into decay and poverty and be unable to maintain themselves and children, or who shall die and have poor orphans, the public shall provide for their comfortable subsistence."

This is the corner stone of the Pennsylvania poor laws. In the simplest age of the Province, the township system for the support of the poor grew up, and we are surprised to find that thirty-two counties of Pennsylvania, in whole or in part, yet adhere to this township system. The larger and wealthier counties of the State containing fully four-fifths of the population and wealth of the State have adopted the improved system of sustaining their poor and unfortunate in one or more large alms-houses. Each of these systems is presented in the following tables, showing the summary of the expenditure incurred in the support of this unfortunate class of our fellow-citizens.

The following table shows how many counties, in whole or in part, adhere to what is usually called "The Township Poor."

The second table exhibits an abstract of the alms-houses.

TOWNSHIP POOR.

COUNTIES.	EXPENDED FOR THE SUPPORT OR RELIEF OF THE POOR.						Amount raised by taxation for support of the poor
	Paid to over- seers for their services.	Paid to justices of the peace & other legal ex- penses.	Medical atten- dence & medi- cine.	Clothing.	Relief of the poor.	Transportation and other ex- penses.	
Armstrong.....	\$781 00	\$92 85	\$513 65	\$285 29	\$6,687 66	\$53 78	\$7,387 66
Bradford.....	410 96	16 40	205 50	319 34	4,508 06	74 47	2,636 40
Butler.....	135 50	8 75	.....	39 30	1,990 55	70 00	1,803 75
Centre.....	503 91	45 75	.....	388 95	4,404 11	45 00	5,163 10
Columbia.....	458 93	48 43	208 96	345 37	7,166 32	110 38	4,090 66
Carbon.....	245 00	12 00	• 103 18	246 43	2,419 28	17 00	1,491 69
Clinton.....	123 00	12 00	51 00	264 02	1,649 15	20 00	2,542 65
Cameron.....	.....	.....	.....	.....	.....	.....	.....
Clarion.....	281 00	90 00	169 50	106 25	2,364 00	37 00	3,047 75
Clearfield.....	163 80	17 77	214 82	54 73	1,827 07	267 10	2,662 30
Elk.....	46 00	1 00	89 45	6 75	549 43	216 39	789 00
Fulton.....	16 50	50	3 00	17 00	88 20	.....	125 20
Forest.....	30 00	.....	.....	25 00	371 00	.....	426 00
Indiana.....	383 14	32 90	233 20	201 06	2,800 74	404 00	4,055 04
Jefferson.....	104 00	9 25	35 00	12 75	803 70	40 00	1,004 70
Juniata.....	234 63	27 56	110 45	189 55	1,810 72	86 96	2,459 88
Luzerne.....	342 09	23 00	292 00	414 24	5,691 84	93 74	6,856 91
Lycoming.....	225 29	18 70	240 75	262 67	3,303 89	635 00	4,686 30
Lawrence.....	319 00	13 88	156 90	173 43	3,409 09	186 01	4,258 31
Monroe.....	152 55	29 00	150 70	239 10	1,013 12	131 19	1,715 66
Montour.....	85 00	10 00	34 50	122 99	1,105 75	.....	1,358 28
M'Kean.....	.....	.....	.....	.....	.....	.....	.....
Northumberland.....	399 88	35 15	161 75	160 04	8,704 05	306 64	9,767 51
Pike.....	127 00	14 70	75 50	145 00	1,412 01	143 00	1,917 21
Potter.....	35 50	5 50	5 00	62 00	631 80	3 50	743 30
Susquehanna.....	371 32	134 99	127 85	229 71	4,456 66	150 70	5,461 23
Snyder.....	212 50	60 05	179 50	131 70	1,996 80	32 00	2,612 55
Sullivan.....	71 75	1 25	6 00	3 50	776 00	13 00	871 50
Union.....	80 35	8 00	28 00	68 40	999 23	.....	1,183 98
Venango.....	193 00	19 00	72 00	146 29	2,187 84	110 10	2,727 73
Wyoming.....	126 00	10 00	30 09	100 78	1,885 38	.....	2,152 16
Wayne.....	171 75	28 00	84 00	160 19	2,209 27	82 00	2,735 21
Total support- ed or reliev'd,	55	64	16	62	72	41	21

ALMS-HOUSES.

ALMS-HOUSES.	LAND.		BUILD'GS		Value of real estate, including buildings.....	AT THE ALMS-HOUSE.			Total cost of out-door relief.....	Total net expenses alms-house and out-door relief.....
	No. of Acres.	Cost.	Cost.	Cost.		Total relieved..	Value of pauper labor..	Total expenditures...		
Adams county alms-house.....	270	.....	.....	.....	\$25,000	.....	Unkno'n.	\$11,000 00	\$1,094 00	\$6,934 00
Allegheny county home.....	205	\$18,450	\$35,000	.....	100,000	407	\$5,560 00	22,586 15	8,233 79	21,170 23
Allegheny city poor house.....	60	4,320	12,000	.....	135,000	380	550 00	25,542 35	6,488 15	28,868 11
City Farm for Pittsburg.....	149	14,900	40,000	.....	150,000	562	.....	16,177 21	11,387 81	26,418 48
Beaver county alms-house.....	135	6,750	18,000	.....	32,500	67	800 00	7,055 86	7,449 86	7,505 72
Bedford county alms-house.....	525	12,500	.....	.....	15,896	136	200 00	6,991 56	1,881 40	8,872 96
Berks county alms-house.....	514	24,138	.....	.....	70,000	667	.....	31,391 94	2,041 29	29,285 75
Blair county alms-house.....	267	10,000	5,700	.....	28,360	157	.....	7,800 00	625 75	8,245 75
Bucks county alms-house.....	360	7,232	60,000	.....	116,600	571	2,685 00	22,356 47	1,364 34	23,412 98
Cambria county alms-house.....	164	4,500	11,000	.....	35,000	66	.....	10,015 43	2,500 00	12,515 43
Carbon county, Middle Coal Field poor district.....	340	.....	.....	.....	56,000	168	2,400 00	24,970 80	994 19	25,310 18
Chester county alms-house.....	364	21,250	35,573	.....	65,000	395	2,000 00	21,571 22	806 92	17,768 11
Clinton county, Lock Haven poor house.....	1.9	.....	.....	.....	2,000	49	.....	538 15	1,583 98	2,122 13
Columbia county, Centralia poor house.....	75	4,500	940	.....	6,200	24	75	610 78	1,804 87	2,365 65
Do Do, Poor dist. of Blooms'g, poor house.....	100	12,600	5,300	.....	16,000	34	.....	996 50	110 50	1,107 00
Crawford county alms-house.....	215	13,100	31,000	.....	44,000	.....	.....	13,723 58	2,110 04	15,508 78
Cumberland county alms-house.....	300	22,500	12,000	.....	40,000	292	400 00	4,134 00	2,600 00	6,734 00
Dauphin county alms-house.....	180	16,000	90,000	.....	15,000	401	300 00	23,318 62	6,531 55	28,876 47
Delaware county alms-house.....	102	16,350	46,500	.....	65,000	317	1,000 00	20,261 22	4,102 95	24,002 95
Erie county alms-house.....	100	Dona'n	.....	.....	150,000	188	.....	17,467 68	18,495 64	34,897 82
Fayette county alms-house.....	129	.....	.....	.....	30,000	126	300 00	7,543 47	1,944 04	8,317 42
Franklin county alms-house.....	233	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greene county alms-house.....	147	5,000	7,000	.....	25,000	93	300 00	6,133 46	91 10	6,123 94
Huntingdon county alms-house.....	190	7,000	5,979	.....	15,000	62	50 00	7,097 16	1,959 95	9,057 11
Lancaster county alms-house.....	195	.....	.....	.....	160,000	622	.....	42,280 26	3,240 36	42,680 49
Lawrence county, New Castle poor house.....	43.5	Dona'n	5,000	.....	9,400	12	.....	3,400 00	315 00	3,635 00
Lebanon county alms-house.....	189	.....	.....	.....	80,000	.....	.....	12,655 24	3,104 00	14,789 29
Lehigh county alms-house.....	245	26,950	16,000	.....	75,000	373	1,500 00	14,839 18	1,972 11	16,089 65
Lycoming county, Williamsport city poor house.....	5	1,600	.....	.....	.....	.....	.....	5,563 46	.....	5,563 46
Luzerne county, Providence poor house.....	126	7,000	7,100	.....	28,060	113	600 00	4,150 71	.....	4,150 71
Do Do, Central poor house.....	140	9,500	7,685	.....	25,000	111	.....	5,833 43	.....	5,523 96

CHARITABLE INSTITUTIONS.

ALMS-HOUSES—CONTINUED.

ALMS-HOUSES.	LAND.		BUILD'GS.		Value of real estate, including buildings.....	AT THE ALMS-HOUSE.			Total cost of out-door relief.....	Total net expenses alms-house and out-door relief.....
	No. of acres.	Cost.	Cost.	Cost.		Total relieved..	Value of pauper labor..	Total expenditures...		
Luzerne county, Lackawanna poor house.....	149	\$6,000	.....	.....	\$12,000	27	\$52 00	\$3,820 06	\$480 00	4,300 06
Do Carbondale city poor house.....	90	3,500	.....	.....	5,000	7	.....	871 12	1,584 35	2,175 80
Do Blakely poor house.....	70	3,500	.....	.....	5,000	61	.....	2,757 00	.....	2,757 00
Do North Luzerne poor dist. poor house..	120	9,000	1,200	.....	12,000	.....	.....	1,993 03	.....	1,993 03
Mercer county alms-house.....	112	4,640	6,000	.....	12,000	147	250 00	8,312 27	2,936 14	11,248 41
Mifflin county alms-house.....	200	17,000	5,000	.....	20,000	55	50 00	4,157 51	2,227 25	6,384 76
Montgomery county alms-house.....	295	.....	.....	.....	44,000	271	3,000 00	15,212 24	4,150 12	19,362 36
Montour county, Danville and Mahoning poor house..	115	10,000	.....	.....	16,000	99	.....	5,496 41	.....	5,496 41
Do Valley township poor house.....	112	3,625	.....	.....	4,000	4	.....	947 00	107 00	5,890 00
Northampton county alms-house.....	360	.....	19,500	.....	63,600	391	.....	10,590 78	1,393 61	11,984 39
Perry county alms-house.....	172	5,196	3,700	.....	12,000	92	500 00	4,924 97	894 50	5,710 11
Philadelphia county, (city) alms-house.....	170	51,762	859,744	.....	2,000,000	9,765	28,816 00	313,186 76	107,176 39	389,728 27
Do Roxboro' poor house.....	40	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do Germantown poor house.....	14	1,200	26,250	.....	60,000	48	.....	4,911 11	4,809 65	8,727 08
Do Oxford and Lower Dublin poor house..	146	10,000	30,000	.....	66,500	118	.....	5,942 69	1,622 55	4,077 35
Schuylkill county alms-house.....	268	7,000	85,000	.....	128,500	586	1,500 00	38,296 87	8,636 35	46,549 89
Somerset county alms-house.....	235	5,000	10,000	.....	.....	50	.....	5,400 00	1,171 76	6,571 76
Susquehanna county, Auburn and Rush Asylum.....	157	6,280	.....	.....	7,500	10	100 00	9,120 30	123 75	8,986 42
Do Montrose and Bridgewater Asylum..	125	4,500	.....	.....	5,600	7	.....	1,512 66	302 66	1,019 96
Do New Milford poor asylum.....	96	5,400	.....	.....	4,000	.....	25 00	454 00	.....	454 50
Tioga county alms-house.....	180	7,400	12,000	.....	20,000	84	250 00	4,400 74	606 86	4,733 77
Warren county, Rouse hospital.....	400	13,500	23,000	.....	30,000	.....	.....	6,744 00	.....	6,744 00
Washington county alms-house.....	209	6,250	.....	.....	51,800	177	.....	6,636 72	268 45	6,068 46
Wayne county, Honesdale and Texas poor house.....	118	.....	.....	.....	.....	.....	.....	3,172 29	215 00	3,387 29
Westmoreland county alms-house.....	186	4,092	7,525	.....	36,000	259	1,000 00	10,691 36	4,295 67	14,690 80
York county alms-house.....	130	1,630	124,000	.....	200,000	359	.....	29,130 19	461 40	29,113 29
Total.....	10,838½	452,635	1,664,696	4,430,456	19,010 54,463 00	895,667 97	231,290 05	1,051,013 69		

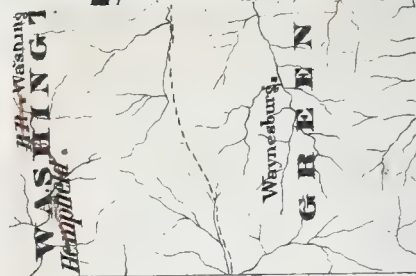
as usually worked for blast furnace purposes

ANTHRAHITE COAL

ANTHRAHITE

© NICKEL

OXIDE SLATE



S. C. Smith. Draft.



MINERAL STATISTICS

OF

PENNSYLVANIA,

ORDERED TO BE COLLECTED BY ACT OF MAY 9, 1871.



MINERAL STATISTICS OF PENNSYLVANIA.

An act was passed May 9, 1871, designed to secure a compend of the mineral statistics of our State. Pursuant to that act the Auditor General had secured returns of the business of 1871, and, late in 1872, transferred these to this Bureau, to which all recognized them as belonging. A bill authorizing this Bureau to receive such returns passed the Senate, but failed in the House, at the last session. Not being authorized by law, I did not attempt to enforce returns of the last year, but have endeavored, as far as I could, to supplement those on hand by such aid as I could secure. I am aware that all I have to publish will give a very imperfect compend of the mineral statistics of our State. I hope the Legislature of 1874 will empower this Bureau to call for the returns authorized by the act of 1871, and that we shall be able to do better another year.

AUDITOR GENERAL'S RETURN.

195

Jefferson.....						5,905		100	
Juniata.....	5,550								
Lancaster.....	93,119								11,116
Lawrence.....	8,891								
Lebanon.....	8,720					67,909			460
Lehigh.....	364,074								
Luzerne.....									
Lycoming.....	658								
McKean.....									
Mercer.....									
Mifflin.....	21,167								
Monroe.....									
Montgomery.....	58,277								
Montour.....	6,563								
Northampton.....	83,306								
Northumberland.....									
Perry.....	13,923								
Philadelphia.....									
Pike.....									
Potter.....									
Schuylkill.....									
Somerset.....									
Snyder.....	300								
Sullivan.....									
Susquehanna.....									
Tioga.....									
Union.....	7,445								
Venango.....									
Warren.....									
Washington.....									
Wayne.....									
Westmoreland.....									
Wyoaming.....									
York.....	26,793								
	1,105,690	915,305	509,733	8,341,718	4,799,554	2,755,637	2,213,028	164,915	

* These returns are very incomplete; in some industries one-half, in others one-third, and in still others no returns. I give them as I find them, which is all that I can do.

	<i>Anthracite coal—tons.</i>
No. of tons of anthracite coal returned to Auditor General's office.....	8,341,718
Amount given for Schuylkill county by <i>Miners' Journal</i> , more than returned to Auditor General.....	2,963,383
Amount given for Luzerne county by <i>Miners' Journal</i> , more than returned to Auditor General.....	1,277,016
Amount given for Northumberland county by <i>Miners' Journal</i> , more than returned to Auditor General.....	1,213,096
Amount given for Shamokin by <i>Miners' Journal</i> , more than returned to Auditor General.....	628,866
Amount given for Lykens by <i>Miners' Journal</i> , more than returned to Auditor General.....	481,328
Amount given, for local consumption, by <i>Miners' Journal</i> , more than returned to Auditor General.....	293,696
Tonnage 1871, as given by <i>Miners' Journal</i>	<u>15,199,103</u>

FLAG, CURB AND DRESSED STONE.

	<i>Feet.</i>		<i>Feet.</i>
Allegheny county.....	20,000	Wyoming county.....	98,250
Carbon county.....	8,586		
Mercer county.....	80,001		<u>278,359</u>
Venango county.....	71,522		

CLAYS, FINE AND FIRE.

	<i>Tons.</i>		<i>Tons.</i>
Armstrong.....	5,282	Fayette.....	713
Beaver.....	31,020	Greene.....	350
Chester.....	3,000	Lawrence.....	2,805
Clarion.....	1,958	Lehigh.....	385
Clinton.....	5,100	Monroe.....	72
Clearfield.....	3,064	Montgomery.....	3,864

BUILDING, FIRE AND GLASS SAND.

	<i>Tons.</i>		<i>Tons.</i>
Berks.....	2,308	Lancaster.....	925
Chester.....	5,665	Mifflin.....	8,675
Huntingdon.....	5,575	Montgomery.....	2,240
Whetstone, Armstrong county.....			874 tons.

SALT.

	<i>Tons.</i>		<i>Tons.</i>
Allegheny.....	8,403	Beaver.....	329
Armstrong.....	694	Westmoreland.....	1,540

PETROLEUM.

	<i>Barrels.</i>		<i>Barrels.</i>
Armstrong.....	19,544	Warren.....	117,329
Beaver.....	19,127		
Crawford.....	114,988	1871, as ret'd to Aud. General..	1,282,843
Forest.....	273,087	Mineral statistics.....	5,795,000
Venango.....	738,768		
		True product.....	<u>4,512,157</u>

MINERAL PAINT.

	<i>Tons.</i>		<i>Tons.</i>
Carbon.....	1,201	Montgomery.....	7
Chester.....	100		<u>1,308</u>

COAL—PRODUCTION.

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ROOFING SLATE.

	<i>Squares.</i>		<i>Squares.</i>
Carbon	107	Northampton	20, 169
Lancaster.....	221	York	4, 956
Lehigh	74, 301		
Lehigh, slate.....	38, 435		<u>138, 189</u>
Hydraulic cement, Carbon		150 tons.	
Hydraulic cement, Lehigh		3, 700 “	
		<u>3, 850 “</u>	
Corundum.....	Delaware.....	900 pounds.	
Green stone, serpentine... Chester		214 perches.	
Green stone, serpentine... Delaware		5, 050 “	
		<u>5, 264 “</u>	
Black emory, Delaware		2, 000 pounds.	
Nickel	Lancaster	613 tons.	
Mill stone.....do.....		100 “	
Charcoal	Lawrence.....	350, 000 bushels.	
Soap stone... Montgomery		5, 100 tons.	
Zinc	Lehigh	16, 457 “	
Bricks	Montgomery.....	2, 700, 000	
Marble.....do		<u>50, 803 cubic ft.</u>	

COAL PRODUCTION OF THE GLOBE.

The following statement exhibits the whole quantity of coal produced in the world, by estimating that mined in countries from which no statistics can be obtained :

COAL PRODUCING COUNTRIES.	Area in sq. miles of coal fields.	Date.	Tons.	Per cent. Production.
United States.....	192, 000	1872,	41, 000, 000	18.66
Nova Scotia.....	18, 000	1871,	673, 242	0.31
Great Britain.....	11, 900	1871,	117, 352, 028	53.41
France.....	1, 800	1867,	12, 148, 223	5.54
Belgium.....	900	1871,	13, 671, 470	6.23
Prussia	1, 800	1869,	26, 774, 368	12.19
Austria.....	1, 800	1862,	4, 525, 783	2.02
Spain.....	3, 000	1869,	593, 033	27
Chili, Australia, India, China, etc.....	23, 000	1872,	3, 000, 000	1.37
Totals.....	260, 000		219, 738, 147	100.

The largest production of coal in the world is that of Great Britain—the following are the official statistics of coal mined in the United Kingdom :

YEARS.	Tons mined.	Home consumption.	Tons exported.
1854	64,661,401	60,351,146	4,309,255
1855	64,453,070	59,476,168	4,976,902
1856	66,645,450	60,765,671	5,879,779
1857	65,394,707	58,656,959	6,737,718
1858	65,008,649	58,479,166	6,529,483
1859	71,979,765	64,972,816	7,006,949
1860	84,042,698	76,720,866	7,321,832
1861	86,039,214	78,184,699	7,855,115
1862	81,638,338	73,336,486	8,301,852
1863	86,292,215	78,017,003	8,275,212
1864	92,787,873	83,977,965	8,809,908
1865	98,150,587	88,980,110	9,170,477
1866	101,630,544	91,676,832	9,953,712
1867	104,500,480	94,084,702	10,415,778
1868	103,141,157	92,303,353	10,837,804
1869	107,427,557	96,839,132	10,588,425
1870	110,431,192	99,926,920	11,504,272
1871	117,352,028	104,802,152	12,549,874
1872	120,000,000	106,788,039	13,211,961

There is no authentic account of the quality of coal mined in Great Britain previous to the year 1854. The following is an estimate, made from the best data attainable, by Mr. Robert Hunt, the chief of the Mining Record Office of the United Kingdom, of all the coal mined in Great Britain since coal was first used in the country :

Mined in the three centuries before 1800	850,000,000
Mined from 1800 to 1853	2,000,000,000
Mined from 1854 to 1870	1,454,224,897

Total coal mined in Great Britain—tons	<u>4,304,224,897</u>
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The following are the uses made of coal mined in 1869 :

Used in iron manufactures	32,446,605
General manufacturing, steam power, &c.	25,327,213
Metallurgies, other than iron	859,231
Mines and collieries	7,225,423
Gas and water works	7,811,980
Steamships	3,277,562
On railways	2,057,500
Domestic consumption	18,481,527
Miscellaneous	195,045
Exported	9,775,470

Total production in 1869—tons	<u>107,427,557</u>
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It is estimated that there are in Great Britain seventy varieties of coal.

In the year 1866 some degree of public anxiety was awakened in England on the subject of the permanence of their coal supply. The scientific journals directed attention to the calculations of Prof. Jevons, and the matter was discussed in Parliament.

After careful investigation by a royal commission of inquiry, it was assumed that it would be possible to work coal at a depth of at least 4,000 feet. Two mines only have reached one-half that depth, and, from the experience gained in those, it appears that the high temperature is not in many cases permanent, and is frequently modified by accidental circumstances. The temperature of the earth is constant at a depth of about fifty feet, and at that depth the temperature is 50° Fahr. The rate of increase in the coal districts is generally about 1° Fahr. for every sixty feet of depth.

Under favorable systems of working coal, the loss is about 10 per cent., while, in a very large number of instances, the ordinary waste and loss amount to 40 per cent.

With regard to the quality of coal in known coal-fields, it is estimated that within depths not exceeding 4,000 feet, and after making the necessary deductions, there are (including upward of 130,000,000 tons in Ireland,) 90,207,285,398 statute tons in all, and, in the estimate, no consideration has been taken of any bed of coal less than one foot in thickness.

To this must be added a further quantity of 56,273,000,000 tons of the probable amount of coal under Permian and other overlying formations at depths of less than 4,000 feet, and deducting 40 per cent. for contingencies, giving an aggregate of 146,480,000,000 tons. Estimating a gradual increase in the population, and that the consumption per head of population will attain its maximum at the end of the present century, a total consumption is shown of 146,730,000,000 tons in 360 years, so that about Christmas, 2231, we shall have to look for our supply of coal from the sub-Permian deposits, at a depth of below 4,000 feet. The commissioners admit that every hypothesis must be purely speculative, but that if the present rate of increase in the consumption of coal be indefinitely continued, even in an approximate degree, the progress toward the exhaustion of our coal will be very rapid.

The report of the commission was severely criticised in the reviews for 1872. The writer argues that there is no doubt that the increase of temperature is at least 1° Fahr., for every 55 feet in depth, and there is reason to believe that it follows an accelerating ratio. At Monkwearmouth mines, the depth worked is 1,640 feet below the surface, and, in consequence of the high temperature, the men work shorter hours, which involves an increased expenditure. At Rosebridge, the deepest shaft in England,

2,376 feet, the temperature of the earth is 92° . At 2,690 feet, the temperature reaches blood-heat, (98°), in which continuous exertion is impossible. The limit to which coal can be extracted, before we commence a steady increase of cost, may be taken at 1,700 feet, and the limit of practicable extraction at 1,000 feet lower. No engineer who has a reputation to lose, would venture to affix his name to a report that would contemplate the economical working of coal mines at a lower depth than 2,700 feet. From 1,700 to 2,700 feet there must be a steady increase in the cost of working.

As to the quantity of unmined coal, the estimate includes every thing that is black, and that is more than 12 inches in thickness. It also includes the total cube quantity of coal. As to the very large quantity of coal believed to exist in undiscovered beds, the writer declines to regard the probability of its extraction as being at present a serious question. He figures up but 39,000,000,000 tons as the total quantity of available coal, and that, if the present rate of increase of consumption continues, the last ton of this will be extracted Anno Domini 1945.

It is a mathematical certainty that the exhaustion of a definite quantity of material which is consumed at an annually increased rate is only a question of time. But this is really a narrow and imperfect basis on which to solve the question, how long the supply of coal in England will hold out. It is really, he says, the question of the price at which coal can be laid down in an English port—comparing that paid for the produce of their own mines with that paid for the produce of other coal-fields, including freight—that must determine the question of the activity, or the disuse of the English collieries, whatever may be the amount of coal actually underlying the soil at that time. Within the last year (1872), a very large increase in the wages paid for mining labor, and a great advance in the prices of English coals, have taken place.

PENNSYLVANIA'S SUPERIOR ADVANTAGES.

For the investment of capital and the employment of skilled laborers Pennsylvania, as a State, possesses superior advantages. Her almost inexhaustible deposits of coal and ore contribute to the constant multiplication of her population and wealth, and make her name a watchword on every sea and a tower of strength in every land. These deposits are so distributed by Providence that the simplest mechanical contrivances, united with comparatively trifling manual labor, enables the producer to avail himself freely of them to supply the needs of civilization.

Pennsylvania produced about 30,000,000 tons of coal in 1873, and it would be impossible to convey any idea of the variety and extent of the important manufactures of the State, from the countless articles in domestic use to the grandest and most beautiful achievements of human ingenuity.

Her central position, her inexhaustible coal-fields, her river, lake, canal and railroad transportation, and her proverbial industry, combine in rendering her the foremost State in the Union. The following pages will show some of the mineral statistics of our good old Commonwealth. She entered upon the production of iron from her native ores before the American Revolution, and has ever since, in that department, been in advance of any other State. In fact, her production in this department is about equal to all the other thirty-six States. Her production, also, of coal and oil is about three-fourths that of the entire Union.

ANTHRACITE COAL-FIELDS OF PENNSYLVANIA.

The total area of all the anthracite coal-basins is as follows:

	Sq. miles.
1. Southern or Schuylkill Basin and Mine Hill.....	146
2. Shamokin, 50; Mahanoy, 41; and Lehigh basins, 37.....	128
3. Wyoming and Lackawanna basin.....	198
Total area of all the anthracite basins	<u>472</u>

It is sometimes difficult to make people believe that all the anthracite or common hard coal of America, which is used everywhere, of which more than 19,000,000 tons are annually mined, and which is sent for use almost all over the Western World, really comes from this one small locality in eastern Pennsylvania. If these regions were all brought together into one body, they would only form a small county, twenty miles wide and a little less than twenty-four miles long. The usual shape and structure of all the several great anthracite tracts of this State are those of long and irregular basins. The depth of the basins depends on the power of the compressing forces which formed them. The thickness of the coal-seams is owing to the local distribution of the vegetable material of which the coal was formed. Where the mammoth bed is found 14, 20, 25 or 30 feet thick, all the coal is mined in that alone if in doing so all the smaller seams shall be destroyed, on the principle that it affords an abundance of coal for our day, and future generations can take care of themselves.

Prof. Rogers reports that the first coalfield possesses an average thickness of 100 feet of coal, and the second and third would measure about 60 feet, and the general average of all the regions together would be about 70 feet, and the separating strata of rock between the several coal-seams vary from 10 to 500 feet thick.

The old Summit Hill mine of the Lehigh Coal and Navigation company was worked in an open quarry of 10 acres in extent; 70 feet in depth, owing to a doubling together of the strata, the seam being actually 55 feet thick measured at right angles, of which more than 40 feet was of the very best quality of coal. In all, 850,000 tons of coal were thus taken out, so that every available acre of land produced 85,000 tons of excellent coal. This mine is now on fire, and has been burning since the year 1857.

The real wonder of this famous Pottsville region is the great Mammoth bed of coal, which is often as much as 30, 40, and in some places even 50 feet in thickness, and which lines the slopes of these bleak, barren hills. Millions of tons of the finest coal have been mined from it above water-level. The mining in the older mining districts is now done by slopes and shafts below water-level.

Both the west and the east ends of this great Schuylkill coal-basin terminate in elevated mountain-valleys, each with its two mountain rims coalescing, the one high above the Lehigh, at Mauch Chunk, and the other high above the Susquehanna, at Dauphin.

The entire area of the various parts of the Schuylkill coalfield is estimated as follows:

	Length in miles.	Square miles.
Mauch Chunk to Tamaqua.....	14	16
Tamaqua to Pottsville.....	16	34
Pottsville to the forks of the basin.....	14	55
North Fork, or Lykens Valley Prong.....	17	16
South Fork, or Dauphin Prong.....	27	15
Area of Schuylkill basin.....		138
Mine Hill basin.....	13	8
Total area of first coal-field.....		146

SECOND COAL-FIELD.

The names by which these two large and important fields are commonly known are derived from the two creeks, by which they are almost exclusively watered. The eastern district, south of the dividing ridge, called Locust mountain, is drained by Mahanoy creek, which empties into the Susquehanna river at Port Trevorton, and is called *The Mahanoy Region*. It is 25 miles in length, with a mean breadth of less than two miles, and contains 41 square miles.

Its southern boundary is the Mahanoy and Broad mountain, and on the north it is bounded by the Big or Head mountain. Its western extremity is bounded on the north by the Locust mountain.

This basin is nearly all in Schuylkill county, the west end only being in Northumberland and Columbia counties.

The *Shamokin basin* is drained by the Shamokin creek, which empties in the Susquehanna river at Sunbury, and is the western portion of the Second or Middle coal-field. This field is 20 miles in length, with a mean breadth of $2\frac{1}{2}$ miles, and its area is 50 square miles.

This with the 41 square miles of the Mahanoy, makes the total area of the Middle coal-field 91 square miles, besides the small Lehigh basins.

THE LEHIGH COAL-BASINS.

The Lehigh coal-fields consist of seven narrow basins lying contiguous to each other, although small in area, are very productive and important, and afford an excellent quality of coal.

The Lehigh river, between White Haven and Penn Haven, is the eastern boundary of this important region.

The following is Daddow's list of names by which the Lehigh basins are known, their length, width and area in square miles :

	Miles long.	Miles wide.	Square miles.
1. Beaver Meadow	11	$\frac{3}{4}$	$8\frac{1}{4}$
2. Hazleton	14	$\frac{3}{4}$	10
3. Big Black Creek	12	$\frac{1}{2}$	6
4. Little Black Creek	7	$\frac{3}{8}$	$2\frac{1}{2}$
5. Lower Black Creek	10	$\frac{1}{2}$	5
6. Green Mountain	7	$\frac{3}{8}$	$2\frac{1}{4}$
7. M'Cauley's Mountain, and others.....			3
Total area, Lehigh basins			37

The area of some of the Lehigh basins is said to have been increased by recent explorations.

The total production of Lehigh coal, in the year 1871, was 2,249,356 tons, and since the opening of the trade, 42,306,793 tons.

The peculiar importance of this Lehigh region, and the eastern extremity of the southern or Schuylkill field at Mauch Chunk, consists in the valuable qualities of the coal which they produce.

In the most remote parts of our country, in the States on the Mississippi river, on the Pacific coast, in the interior of our far western territories, all through the South, as well as in the more populous regions and large manufacturing cities on the Atlantic slope, Lehigh coal is one of the great necessities of manufacturing. No coal dealer, anywhere in the country, has a stock of coal to supply all his customers, if he has no Lehigh.

Its special qualities consist in its large amount of carbon, its purity, and its hardness. By passing a strong current of air through it, when ignited, an intense heat can be procured, sufficient to melt cast iron.

Where the genuine Lehigh coal cannot be procured for foundry purposes, the other and softer varieties of anthracite are substituted, and, where they are out of reach, coke from bituminous coal is used.

General Geological Structure of the Third Coal-field.—The general configuration of the Wyoming basin is a wide and shallow trough, deeper in the middle than at the sides, yet deepening so gradually toward the centre as to be, if we regard the subordinate undulations of the strata, approximately flat.

This prevailing levelness of its bed or floor, notwithstanding the considerable angles of dip, frequently more than 30° , is at once apparent when we compare the great width of the valley, four or five miles in its middle district, with the very moderate depth of 1,200 or 1,500 feet, or perhaps 1,800 feet.

The total production of the Wyoming and Lackawanna valleys, or the Third coal-field, in the year 1871, was 6,481,171 tons, carried by nine railroads, and one canal; or 43 per cent. of the whole production, which, by Mr. Bannan's statistics, was 14,965,501 tons of anthracite. Since the opening of the trade, this region has produced 78,308,841, and all of the regions 219,981,040 tons.

COAL—SEMI-BITUMINOUS.

A line drawn on the map of Pennsylvania and Maryland, through the Blossburg region, in a south-western course, would pass through or near the Broad Top and Cumberland, as well as two other intermediate semi-bituminous coal regions at Snow Shoe and Phillipsburg, in Centre county, Pennsylvania, all of which produce the same species of coal.

The production of the semi-bituminous regions in Pennsylvania, in 1871, was as follows :

	Tons.
1. Blossburg, three coal companies.....	815,079
2. M'Intyre, one coal company.....	106,130
3. Towanda, two coal companies.....	378,335
4. Snow Shoe, one coal company.....	82,468
5. Phillipsburg, sixteen coal companies.....	542,896
6. Johnstown, or Cambria iron works, one coal company....	263,472
7. Cambria county on Pennsylvania railroad, ten coal companies,	206,792
8. Broad Top, nineteen coal companies	319,618
Total	<u>2,714,790</u>

James Macfarlane, General Agent of coal companies in Tioga and Bradford counties, furnishes the following:

Coal sent to market, 1873, Tioga county, Pennsylvania.

	Tons.
Fall Brook coal company.....	312, 466
Morris Run coal company.....	357, 384
Blossburg coal company	321, 207
Total, Tioga.....	<u>991, 057</u>

Lycoming county.

M'Intyre coal company.....	212, 462
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Bradford county.

Towanda coal company.....	252, 329	
Fall Creek B coal company.....	85, 315	
		<u>337, 644</u>
Total of the three counties		<u>1, 541, 163</u>

As compared with 1872:

Tioga county, (increase,).....	141, 695
Lycoming county, (increase,)	41, 035
	<u>182, 730</u>
Bradford county, (decrease,).....	<u>45, 198</u>

BLACKSMITH'S COAL.

In the New York, Philadelphia, Baltimore, Boston, and other Atlantic markets, no other coal is sold or used for blacksmithing but Cumberland, Clearfield and Broad Top; while in the interior of the State of New York, in Western Canada, or Ontario, and in all the western or north-western States, every blacksmith uses Blossburg coal, which is the generic name by which all this kind of coal from northern Pennsylvania is called. As an instance of the distance to which this valuable fuel is carried, it may be stated that 75,053 tons were shipped in 1871 from Oswego and Buffalo to Canada, and our own western States. Chicago alone took 21,248 tons before the great fire, and had an insufficient supply, much of which was re-sold and shipped off by railroad westward and north-westward. Some of it was re-sold as far as Omaha, and shipped still farther westward. The blacksmiths of Salt Lake City, Utah, use Blossburg coal, and it is even carried in sack over the plains, and over the mountains through the gold regions of our western territories, to sharpen the tools of the miner. This is owing to the fact that the western coal does not possess those peculiar qualities required for this business.

All the puddling and heating furnaces from Troy, New York, to Buffalo, use Blossburg coal in very large quantities. But the largest demand for Blossburg and other semi-bituminous coal is for the *generating of steam* in locomotive and stationary boilers.

The following is a summary of the total joint production of coal from the Blossburg, M'Intyre and Towanda coal regions for 1870 and 1871.

COAL REGIONS.	1871.	1870.	Increase.
Blossburg region, 3 companies.....	815,079	733,035	82,044
M'Intyre, 1 company.....	106,130	17,808	88,322
Towanda, 2 companies.....	378,335	273,335	105,000
Total tons.....	1,299,544	1,024,178	275,366

The coal produced in 1871 was used as follows:

For locomotive purposes.....	619,054
By rolling mills.....	242,142
By Onondaga salt company.....	170,142
By stationary engines, steamboats, &c.....	168,285
By blacksmiths.....	99,852
Total as above.....	<u>1,299,544</u>

The total production of these three districts since the mines were opened is 6,453,222 tons, of which 5,881,750 tons were from the Blossburg region proper.

SEMI-BITUMINOUS—BROAD TOP MOUNTAIN.

The Broad Top mountain coal region is strictly and geologically an independent or isolated coal region, situated forty miles east of the declivity of the Allegheny mountains, which form the eastern boundary of the first bituminous coal basin. Parts of it are situated in Bedford, Huntingdon and Fulton counties, and the outlet to market for its coal is by the Huntingdon and Broad Top Mountain railroad to Huntingdon, thirty-six miles, and from thence to Philadelphia, two hundred and three miles. Trough Creek valley, Plank Cabin valley and Wells' valley, in Huntingdon and Bedford counties, form a trench around the Broad Top mountain, with its coal basin, and Brush Creek valley is attached to the ring at its southern end. This ring or circular valley is a deep depression worn out of the red shale by the Juniata river and other water courses, one thousand feet deep below the crest of the enclosing mountains. It is usually but one or two

miles wide, but at its northern end forms a triangular opening six miles wide at its base and eighteen miles long, rising to the top of the knob of Terrace mountain, overlooking the county of Huntingdon. In the centre of this ring rises the mountain mass of the Broad Top, containing eighty square miles of coal measures, disposed in six parallel basins and crowned with a central peak, the "Broad Top," rivalling in height the summit of the Allegheny mountain, forty miles distant. Near the summit of this peak remains a small, round patch of the Pittsburg or Westmoreland gas coal bed, a few acres in extent; the sole relic of that vast deposit of this famous bed remaining in all the country between Cumberland, in Maryland, on the south, Blairsville, in Indiana county, on the west, and Donaldson, in the Pottsville basin of the anthracite coal region, on the east.

The Huntingdon and Broad Top Mountain railroad was completed in 1856, when the first coal was sent to market. The total production of the region has been 3,942,005 tons in sixteen years; that of 1871 was 319,625 tons, and the average has been about 300,000 tons per annum for the past twelve years. The specific gravity of Broad Top coal is 1,330, and of Pittsburg coal 1,285.

BITUMINOUS COAL REGIONS OF WESTERN PENNSYLVANIA.

THE LOWER COAL-MEASURES.

The Pennsylvania bituminous coal-field may be considered as a great and complex basin, for such it really is. Its boundary on the east or south-east is very well defined by the abrupt declivity of the Allegheny mountain. West and north-west of this long, straight rim of this vast basin, lies this coal-field, which is only the north-eastern extremity of the through-shaped plain or table-land which ranges thence uninterruptedly south-westward to the centre of Alabama. The courses of the streams show that the general surface ascends gradually toward the north where the Allegheny river drains it throughout. It runs through a deep and comparatively narrow trench in the coal-basin.

Prof. Rogers accounts for its changes of course, from south-east to south-west, by the action of two great currents of eroding water, when the continent was elevated, the main one flowing south-westward from the Allegheny mountain, and the other south-eastward from the region of the lakes, and cutting valleys at right angles to each other.

From the summit of the Allegheny, the country declines both ways, but it is only with what lies west of it that we are concerned.

This district, west of the Allegheny water-shed, is not a simple slope, but is a great, irregular trough, the southern portion being, in fact, a series of parallel troughs, caused by the ridges of Negro mountain, Laurel Hill, and Chestnut Ridge, rising up, sometimes 1,200 feet high, within the south-eastern part of the coal-field, the Conemaugh and Youghioghny rivers crossing them, and cutting gaps down through them to their base. Around the north-western borders of the basin, where the waters emptying into the Allegheny separate from those flowing into Lake Erie, the elevation is about 1,200 feet.

The northern part of the basin is also geologically undulated into six coal-basins. The north-western tract, of the coal-field, the fifth and sixth basins, gradually subsides in level toward the south-west, and the strata also decline in the same direction, but at a somewhat faster rate than the surface does, and hence the south-western portion of the State contains a greater thickness of coal-measures than the north-eastern. Indeed, in Potter, M'Kean, Warren, and parts of the counties south of them, the table land is almost entirely destitute of the coal-producing parts of the formation, and is only overspread by the conglomerate and other older rocks known to underlie any workable coal beds.

THE PITTSBURG SEAM.

It is seldom that a seam of coal is so well defined and so easily followed as this Pittsburg seam. It may be observed at the following elevation above the Monongahela in descending the stream at different places, viz: Morgantown, West Virginia, 180 feet; at Greensboro', thirteen miles below, and two miles below the Pennsylvania line, 200 feet. Below Brownsville it dips nearly into the river, but rises again regularly as we go down the river, till at Monongahela City it is 150 feet; at Elizabethtown 200 feet, and at Pittsburg 300 feet. Below Greensboro' the elevations are approximate only, but above that place they are actual measurements.

The seams of coal of the lower coal-measures have been reached in boring for salt water at Pittsburg, Greensboro', and at various other places.

The depth of the first two seams at Pittsburg was 140 and 180 feet below the Ohio river.

The Monongahela river, for about 95 miles from the Virginia State line to Pittsburg, possesses every important advantage for the production of coal. It is, therefore, not surprising that the annual tonnage of this district is larger than that of any other bituminous coal region of the United States. The coal is of an excellent quality for iron making, for generating steam, for gas and for domestic purposes. It is found in unlimited quanti-

ties in the hills on both sides of the river, at short distances only from the water, the coal being often run from the mouths of the mines by slides or incline planes into the boats. The seam is of a good, workable thickness, four and a half feet, and upward, of pure coal. The facilities for mining are excellent, and the transportation being by water, is cheaper and for longer distances than that of any other coal region in the United States. The Monongahela river is made navigable, at all seasons of the year, by dams, with locks large enough for steamboats and the largest coal boats, each carrying 800 tons, and barges carrying 440 tons. A large portion of the Monongahela river coal is run down the Ohio and Mississippi to market, the distance from Pittsburg to New Orleans by river being 2,096 miles. There were 1,847,609 tons of coal shipped in the year 1871 by the Monongahela navigation alone.

MERCER COUNTY BLOCK COAL.

Beneath the conglomerate we find a small group of coal-measures, which comes in under the great conglomerate in the country, between French creek and the Ohio line, and containing a valuable seam.

This is the Sharon coal, in Mercer county. It is a species of semi-cannel coal with a slaty structure, and a dull, jet-black lustre, with a thickness of from three to four feet. It seems an extraordinary circumstance that the most important coal region in north-western Pennsylvania and eastern Ohio, as respects the present production and the quality of its coal, should be almost outside of what was regarded as the coal region and below the coal-measures. The so-called splint-seam, producing block coal, belongs to a group of coal strata which, although appertaining to the true coal formation, were long ago recognized as being beneath the main body of the conglomerate.

Though the bed is frequently a mixture of coal and slate, as its name implies, it produces the most valuable coal in the United States, and it embraces one and some times two important beds.

One of the most important uses to which mineral coal has been applied is the smelting of iron or the manufacture of pig or cast iron from the ore. The qualities required for this purpose are, sufficient hardness in the mechanical structure of the coal to bear the pressure of a charge and the high temperature required in the blast furnace, the absence of all the melting or caking property, which would stop the draught in the stack, freedom from sulphur, in order to produce iron of good quality, and sufficient heating

power. There were nearly 500,000 tons of block coal produced in Mercer county in 1871, and twenty-three blast furnaces, in the district above mentioned, were running on this coal in that year, with others in the course of construction. There are about the same number of furnaces on the Ohio side of the line.

The principal locality where this peculiar coal is produced is along the line of a small branch of the Erie and Pittsburg railroad, at Sharpsburg, seventy-five miles south of Erie. The mines are in Hickory township, and in the vicinity of Sharon, Wheatland and Middlesex, in the south-western part of Mercer county, and the area is quite limited.

THE CONNELLSVILLE COKE REGION.

Throughout the first trough or basin west of the Chestnut Ridge, which may now be properly called the Connellsville basin, the superb Pittsburg bed, the great coke-seam, occupies the middle of the field, and appears along two parallel lines of out-crop which range from half a mile to two and a half miles asunder, that being the width of the basin.

In some neighborhoods the bed as it dips into the middle of the trough descends to a considerable depth below the lowest water course, while in other places the bottom of the basin which it forms does not reach the water level. This is the now celebrated Connellsville region.

Connellsville coke has become very celebrated not only about Pittsburg but throughout the western States, where it is extensively used for foundry purposes in melting pig iron, selling in competition with Lehigh coal. It is used in blast furnaces for smelting iron from the ore, and is sometimes mixed with western coals.

It is also an excellent fuel for locomotive use. Its freedom from sulphur has given this coke the representation of being the best known. The Pittsburg and Connellsville railroad is a large transporter of the coal and coke of this region, while a portion of it produced near the mouth of the Youghiogheny finds its way to market by the Monongahela river slack water navigation.

The South-western Pennsylvania railroad which leaves the Pennsylvania Central at Greensburg, and passes through Connellsville and Uniontown, and thence in course of construction to the Cheat river is designed to penetrate this coke region, and will afford increased facilities for the shipment of coal and coke.

Connellsville coal weighs eighty pounds to a bushel, and when properly coked a hundred bushels of coal produce one hundred and twenty-five bushels of coke, and the coke weighs forty pounds to a bushel; that is, a given quantity of the coal gains one-quarter in bulk, and loses three-eighths of its weight, or one hundred pounds of coal makes sixty-two and a half pounds of coke.

At the Dunbar furnace seventy bushels of coke produced from two gross tons of coal, smelt a ton of pig iron, but the Pittsburg furnaces use eighty to eighty-five bushels, the difference being owing, probably, in part at least, to the kinds of ore and limestone used.

I regret not to have been able to procure approximate statistics of this coke trade. The manufacturers, dealers, and even coke exchange are all too busy to furnish statistics.

THE COUNTIES WITH AND WITHOUT COAL.

Of the sixty-six counties in Pennsylvania, the following twenty-five contain no coal whatever, viz: Philadelphia, Delaware, Chester, Montgomery, Bucks, Northampton, Lehigh, Berks, Lebanon, Lancaster, York, Adams, Franklin, Cumberland, Mifflin, Juniata, Perry, Snyder, Union, Montour, Monroe, Pike, Wayne, Susquehanna and Erie. They are all situated in the south-eastern part of the State, except Erie, which is in the north-western corner. The anthracite coal of Pennsylvania is situated principally in the four counties of Dauphin, Schuylkill, Carbon and Luzerne; with smaller quantities, the borders of the basins in Northumberland and Columbia counties, and there is a semi-anthracite coal in Sullivan and a little in Wyoming county:

Six counties contain detached fields of semi-bituminous coal, Bradford, Lycoming, Tioga, Huntingdon, Bedford and Fulton. The following twenty-seven counties in the western and north-western part of the State contain bituminous coal, a portion of which along the eastern margin of the field is semi-bituminous, viz: Somerset, Fayette, Greene, Washington, Westmoreland, Cambria, Indiana, Armstrong, Allegheny, Beaver, Lawrence, Butler, Clarion, Jefferson, Clearfield, Blair, Centre, Clinton, Cameron, Elk, Forest, Venango, Mercer, Crawford, Warren, M'Kean and Potter, or in all forty-one coal producing counties. Of so vast a coal region with a very intricate structure, only a general account can be given. Its total area is 12,222 square miles, besides eighty miles in Broad Top, and 472 in the An-

thracite fields, making a total of 12,774 square miles of coal of all kinds in Pennsylvania.

The Geological report of Prof. Rogers, in three volumes, is the basis of our knowledge of the coal-fields of Pennsylvania. Fuller and detailed reports upon special localities have since added largely thereto. The latest work which appears to be a full and accurate compend, "The Coal Regions of America," in one volume, by James Macfarlane, has been the source from which we have condensed our sketches.

ANTHRACITE COAL TRADE OF PENNSYLVANIA.

The following table exhibits the Anthracite coal sent to market from the different regions in Pennsylvania, from the commencement of the trade in 1820 to 1872, inclusive.

Years.	Schuylkill.	Lehigh.	Wyoming region.	Northumberland county.	Lykens Valley and Short Mountain.	Big Lick.	Summit Coal Co.	Trevorton.	Aggregate.	Annual increase.
1820.....	.....	365	.....	.....	.....	.....	.....	.....	365	.....
1821.....	.....	1,073	.....	.....	.....	.....	.....	.....	1,073	708
1822.....	1,480	2,240	.....	.....	.....	.....	.....	.....	3,720	2,647
1823.....	1,128	5,823	.....	.....	.....	.....	.....	.....	6,951	3,231
1824.....	1,567	9,541	.....	.....	.....	.....	.....	.....	11,108	4,157
1825.....	6,500	28,393	.....	.....	.....	.....	.....	.....	34,893	23,785
1826.....	16,767	31,280	.....	.....	.....	.....	.....	.....	48,047	13,151
1827.....	31,360	32,074	.....	.....	.....	.....	.....	.....	63,434	15,387
1828.....	47,284	30,232	.....	.....	.....	.....	.....	.....	77,516	14,082
1829.....	79,973	25,110	7,000	.....	.....	.....	.....	.....	112,083	34,567
1830.....	186,059	166,131	7,000	.....	.....	.....	.....	.....	359,190	.....
1831.....	89,984	41,750	43,000	.....	.....	.....	.....	.....	174,734	62,651
1832.....	81,854	40,966	54,000	.....	.....	.....	.....	.....	176,820	2,086
1833.....	209,271	70,000	84,600	.....	.....	.....	.....	.....	363,871	187,051
1834.....	252,971	123,000	111,777	.....	.....	.....	.....	.....	487,748	123,877
1835.....	226,692	106,244	43,709	.....	.....	.....	.....	.....	376,636	d. 111,112
1836.....	339,508	131,250	90,000	.....	.....	.....	.....	.....	560,758	184,122
1837.....	432,045	148,211	103,861	.....	.....	.....	.....	.....	684,117	123,359
1838.....	523,152	223,902	115,387	.....	.....	.....	.....	.....	862,441	178,324
1839.....	433,875	213,615	78,207	.....	.....	.....	.....	.....	725,697	d. 136,744
.....	442,608	221,025	122,300	11,930	.....	.....	.....	.....	797,863	72,166
1840.....	3,218,019	1,319,963	846,832	11,930	.....	.....	.....	.....	5,210,685	.....
1841.....	452,291	225,318	148,470	15,505	.....	.....	.....	.....	841,584	43,721
1842.....	585,542	143,037	192,270	21,463	.....	.....	.....	.....	932,312	90,728
1843.....	541,504	272,546	252,599	10,600	.....	.....	.....	.....	1,076,649	144,337
1844.....	677,312	267,793	285,605	10,000	.....	.....	.....	.....	1,240,710	164,061
1845.....	840,378	377,002	365,911	13,087	.....	.....	.....	.....	1,596,458	355,748
1846.....	1,083,796	429,453	451,836	10,000	.....	.....	.....	.....	1,975,085	378,627
1847.....	1,236,582	517,116	518,389	12,572	.....	.....	.....	.....	2,284,659	309,574
1848.....	1,532,374	633,507	553,067	14,904	.....	.....	.....	.....	2,814,822	530,193

ANTHRACITE COAL TRADE OF PENNSYLVANIA—CONTINUED.

Years.	Schuylkill.	Lehigh.	Wyoming region.	Northumberland county.	Lykens Valley and Short Mountain.	Big Lick.	Summit Coal Co.	Trevorton.	Aggregate.	Annual increase.
1848.....	1,652,835	670,321	685,196	19,356	.....	.....	.....	.....	3,027,708	212,856
1849.....	1,605,126	781,656	732,910	19,650	25,325	.....	.....	.....	3,164,661	136,953
1850.....	10,258,740	4,317,749	4,216,253	146,937	25,325	.....	.....	.....	18,954,678	.....
1851.....	1,712,007	690,456	827,823	19,921	37,763	.....	.....	.....	3,287,970	123,369
1852.....	2,229,426	964,224	1,156,167	24,899	54,200	.....	.....	.....	4,428,916	1,140,946
1853.....	2,450,950	1,072,136	1,284,500	25,846	59,857	.....	.....	.....	4,893,289	464,373
1854.....	2,470,943	1,054,309	1,475,732	15,500	69,007	.....	.....	.....	5,086,391	193,102
1855.....	2,895,208	1,207,186	1,605,478	63,500	107,500	.....	.....	.....	5,876,872	790,481
1856.....	3,318,555	1,284,113	1,771,511	116,117	117,221	.....	.....	.....	6,607,517	730,645
1857.....	3,258,356	1,351,970	1,952,581	210,518	102,926	.....	.....	73,112	6,896,351	183,834
1858.....	2,985,541	1,318,511	1,972,603	266,517	121,739	.....	.....	110,711	6,644,941	d. 251,410
1859.....	2,866,449	1,380,030	2,186,094	242,579	127,815	.....	.....	106,686	6,802,967	158,026
.....	3,004,953	1,628,311	2,731,236	305,043	138,712	.....	.....	124,290	7,808,255	1,005,288
1860.....	27,192,388	11,951,276	16,961,725	1,291,040	936,770	.....	.....	414,799	58,333,469	.....
1861.....	3,270,516	1,821,674	2,941,817	300,256	178,860	.....	.....	90,148	8,513,123	704,868
1862.....	2,697,489	1,738,377	3,055,140	290,928	172,380	.....	.....	49,477	7,954,314	d. 558,809
1863.....	2,890,598	1,351,054	3,145,770	364,865	177,121	.....	.....	63,223	7,869,408	d. 84,906
1864.....	3,433,265	1,894,713	3,759,610	337,136	141,282	.....	.....	62,200	9,566,006	1,696,598
1865.....	3,642,218	2,034,669	3,960,836	389,779	129,973	.....	.....	56,301	10,177,475	611,369
1866.....	3,735,802	1,822,535	3,255,658	484,257	136,900	.....	.....	27,095	9,435,152	d. 642,323
1867.....	4,633,487	2,128,867	4,736,616	610,809	149,801	.....	.....	53,648	13,329,692	3,894,540
1868.....	4,334,820	2,062,446	5,328,322	533,815	165,394	.....	.....	48,118	12,552,439	d. 777,253
1869.....	4,414,356	2,507,582	5,990,813	911,787	212,086	.....	.....	38,728	13,834,132	1,281,693
.....	4,748,969	1,929,523	6,068,369	974,015	183,731	.....	.....	45,612	13,651,747	d. 182,385
1870.....	37,801,521	19,311,440	42,243,951	4,897,391	1,647,528	.....	.....	534,550	106,883,488	.....
1871.....	3,720,403	2,990,878	7,554,909	1,025,515	67,775	.....	.....	67,847	15,274,029	1,622,282
1872.....	5,124,780	2,249,356	6,713,773	1,213,096	94,183	.....	.....	.....	15,199,103	d. 74,926
.....	5,207,451	3,610,674	9,191,171	1,221,327	50,931	.....	.....	.....	*18,929,263	3,730,210
.....	92,709,361	45,917,467	87,733,614	.....	2,822,512	425,307	1,383,032	.....	239,143,905	.....

* This only embraces the quantity of Anthracite sent to market—consumption in the coal regions is estimated and added to total consumption.

† Aggregate columns give the actual quantity sent to market.

BITUMINOUS COAL TRADE OF PENNSYLVANIA.

TABLE exhibiting the Bituminous trade moved toward the sea-board, together with the importations of foreign coal, and the total consumption of Anthracite and Bituminous coal in the United States.

YEARS.	Penn'a Central and Phil'a and Erie.—East.	Broad Top.	Cumberland coal trade.	Import of foreign coal.	Aggregate.	Increase and decrease.	Aggregate of all kinds.	Total increase & decrease.	Total consumption of A. & B. coal in the U. States.
1820					22, 122		365		
1821					34, 523	12, 401	23, 195		
1822					30, 433	dec., 4, 090	38, 243		
1823					7, 228	dec., 23, 205	37, 884		
1824					25, 645	18, 317	18, 396		
1825					35, 665	10, 020	60, 588		
1826					40, 257	4, 592	83, 712		
1827					32, 302	dec., 7, 955	103, 691		
1828					45, 393	13, 091	109, 818		
1829							157, 476		
1830				273, 568	273, 568		632, 758		
1831				58, 136	58, 136	12, 743	232, 870		
1832				36, 509	36, 509	dec., 21, 627	213, 329		
1833				72, 978	72, 978	36, 469	436, 849		
1834				92, 432	92, 432	19, 454	580, 180		
1835				71, 626	71, 626	dec., 20, 806	448, 262		
1836				49, 969	49, 969	dec., 21, 657	610, 727		
1837				108, 432	108, 432	58, 463	792, 549		
1838				153, 450	153, 450	45, 018	1, 015, 891		
1839				129, 083	129, 083	dec., 24, 367	834, 780		
				181, 551	181, 551	52, 468	979, 414		
1840				954, 166	954, 166		6, 164, 851		
1841				162, 867	162, 867	dec., 18, 684	1, 004, 451		
1842				153, 394	155, 394	dec., 7, 473	1, 087, 706		
1843			1, 708	141, 521	143, 229	dec., 12, 165	1, 219, 878		
1844			10, 082	41, 163	51, 245	dec., 91, 984	1, 291, 955		
1845			14, 890	87, 073	101, 963	50, 718	1, 698, 421		
1846			24, 653	85, 776	110, 429	8, 466	2, 085, 514		
1847			29, 795	156, 853	186, 648	76, 219	2, 471, 307		
			52, 940	148, 021	200, 961	14, 313	3, 015, 813		

THE STATISTICS of mining in the State of Pennsylvania, in each county, for specified industries, at the census of 1870.

MINERALS.	Establishments...	Steam engines.		Water-wheels.		Hands employed.					Capital.	Wages.	Materials	Products.	
		Horse-pow'r,	Number...	Horse-pow'r,	Number...	All.....	Men above ground....	Men under ground....	Boys above ground....	Boys under ground....	Dollars.....	Dollars.....	Dollars.....	Tons	Dollars.....
<i>Adams.</i>	2	30	1	.....	.....	17	10	7	.....	.....	4,600	6,000	2,255	2,700	29,000
Iron ore.....						13	6	7	.....	.....	14,500	12,500	482	1,838	14,300
<i>Allegheny.</i>	2	.....	.....	.....	.....	6,086	1,082	4,900	.....	104	6,279,850	3,504,168	187,000	2,635,431	4,919,986
Coal, anthracite.....	66	560	11	.....	.....								
Coal, bituminous.....	11	.....	.....	.....	.....	312	16	248	.....	48	159,400	165,300	7,075	186,465	213,862
Iron ore.....	4	.....	.....	.....	.....	380	.....	355	.....	25	119,000	173,646	8,644	59,857	196,271
<i>Armstrong.</i>	187	2,403	187	.....	.....	384	384	.....	.....	.....	1,149,630	157,425	281,147	113,543,080	1,496,245
Petroleum.....															
<i>Beaver.</i>	16	.....	.....	.....	.....	83	12	70	.....	1	116,550	27,750	3,111	28,020	52,725
Coal, bituminous.....	95	1,339	108	.....	.....	193	193	.....	.....	.....	579,000	29,140	5,356	11,376,480	173,480
Petroleum.....															
<i>Bedford.</i>	6	.....	.....	.....	.....	252	21	231	.....	.....	103,600	94,110	4,270	115,200	143,760
Coal, bituminous.....															
<i>Berks.</i>	1	.....	.....	.....	.....	3	3	.....	.....	.....	500	640	18	*	800
Copper ore.....	26	.....	633	.....	.....	502	398	88	16	.....	268,500	145,341	35,972	101,035	379,460
Iron ore.....															
<i>Blair.</i>	6	.....	30	.....	.....	191	29	162	.....	.....	150,100	81,500	7,560	161,850	197,220
Coal, bituminous.....	3	.....	170	.....	.....	223	50	137	10	26	190,000	98,551	16,914	36,591	150,893
Iron ore.....															
<i>Bradford.</i>	2	.....	40	.....	.....	750	750	.....	.....	.....	550,000	560,000	44,600	350,000	870,000
Coal, bituminous.....															
<i>Bucks.</i>	7	.....	.....	.....	.....	45	45	.....	.....	.....	25,300	13,400	2,349	*	22,955
Stone.....															
<i>Butler.</i>	46	.....	.....	.....	.....	149	6	143	.....	.....	78,575	57,307	10,403	63,118	114,110
Coal, bituminous.....	1	12	1	.....	.....	2	2	.....	.....	.....	6,000	1,800	830	154,600	5,200
Petroleum.....															
<i>Cambria.</i>	3	55	1	.....	.....	527	56	471	.....	.....	161,500	287,887	4,380	244,298	307,057
Coal, bituminous.....	1	20	1	.....	.....	521	52	469	.....	.....	250,000	340,762	8,476	104,598	367,623
Iron ore.....														*	
Stone.....	3	.....	.....	.....	.....	22	22	.....	.....	.....	5,325	7,523	8,190	*	19,163

STATISTICS OF MINING IN PENNSYLVANIA—CONTINUED.

MINERALS.	Establishments...	Steam en- gines.		Water- wheels.		Hands employed.				Capital. Dollars.....	Wages. Dollars.....	Materials Dollars.....	Products.	
		Horse-pow'r,	Number.....	Horse-pow'r,	Number.....	All.....	Men above ground....	Men under ground....	Boys above ground....	Boys under ground....			Tons	Dollars.....
<i>Carbon.</i>														
Coal, anthracite....	4	1,785	15			1,214	565	425	44	180	1,510,000	592,334	403,384	1,001,210
<i>Centre.</i>														
Coal, bituminous...	7					302	39	253		10	626,100	145,978	184,456	217,634
Iron ore	1					4		4			200	690	400	1,800
<i>Chester.</i>														
Iron ore	12	134	9			116	116				128,400	43,320	33,100	131,500
Marble.....	1	80	1			28	28				75,000	12,000	*	27,000
Stone	7	6	1			38	38				24,750	14,330	*	28,590
<i>Clarion.</i>														
Coal, bituminous...	9					103	6	97			85,151	41,570	55,540	69,738
Iron ore	2					105		105			18,765	38,800	17,000	48,000
Petroleum.....	5	58	4			11	11				26,000	3,785	†318,900	21,375
Stone	1					5	5				1,000	2,652	*	2,970
<i>Clearfield.</i>														
Coal, bituminous...	11					279	21	251		7	369,800	147,903	181,237	248,151
<i>Columbia.</i>														
Coal, anthracite....	8	1,655	33			2,303	735	1,215		353	940,000	771,958	400,876	1,272,500
Iron ore	1	60	2			116	6	110			50,000	84,000	20,800	104,000
Stone	2					35	35				27,500	17,000	*	43,200
<i>Cumberland.</i>														
Iron ore	7	165	7			123	123				44,500	46,430	17,700	59,300
<i>Dauphin.</i>														
Coal, anthracite...	5	1,149	21			1,732	416	1,164	62	90	855,000	671,924	411,355	983,265
Iron ore	2	58	3			42	29				11,250	16,500	13,000	63,750
Stone	14					52	52				22,800	18,480	*	36,003
<i>Delaware.</i>														
Stone	4					55	55				53,500	24,600	*	98,000
<i>Elk.</i>														
Coal, bituminous...	2					142	113		29		366,000	78,920	78,779	136,068

MINING BY COUNTIES.

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<i>Erie.</i>	3	5	1	1	16	16	16	1	1,800	4,549	338	*	6,600
Stone.....	22	80	4	4	477	172	•	305	669,764	267,321	4,842	453,580	831,553
<i>Fayette.</i>	5				40	39		1	9,800	16,445	3,528	*	34,475
Stone.....	1				6	6			150	1,000	500	*	2,000
<i>Franklin.</i>													
Stone.....	9	112	10		21	21			39,800	5,094	2,147	†974,520	83,430
<i>Forest.</i>													
Petroleum.....	2	28	2		4	4			4,000	400	1,398	†63,000	8,875
<i>Greene.</i>													
Petroleum.....	7				334	139		195	251,775	175,014	18,229	163,693	241,953
<i>Huntingdon.</i>	16			8	107	33		74	61,550	33,617	4,857	25,822	63,965
Coal, bituminous..													
Iron ore.....	23				108	45		60	132,900	25,510	5,140	38,082	96,026
<i>Indiana.</i>													
Coal, bituminous..	3				8			8	2,125	1,540	178	3,092	3,092
<i>Jefferson.</i>													
Coal, bituminous..	17	845	28	5	864	792		46	638,000	321,871	35,234	145,321	545,501
<i>Lancaster.</i>	1	130	2		48	26		22	60,000	6,400	1,800	*	24,000
Iron ore.....	4				43	43			8,800	12,150	1,292	*	31,338
<i>Lawrence.</i>													
Stone.....	11	20	2		245	48		197	289,050	190,335	10,077	129,810	281,511
Coal, bituminous..	3				66	66			22,000	43,200	850	*	58,000
<i>Lebanon.</i>													
Stone.....	1				4	4			30,000	2,000	2,000	*	7,000
Copper.....	7	160	7		176	151		25	1,998,600	71,011	127,532	170,830	460,406
Iron ore.....	6				26	26			3,325	7,480	1,390	*	15,250
<i>Lehigh.</i>													
Stone.....	23	410	24		383	204		140	223,447	118,279	25,804	96,297	384,168
Iron ore.....	12				95	94		1	28,700	30,550	4,876	*	59,995
<i>Luzerne.</i>													
Coal, anthracite....	90	24,046	437	330	7,772	16,589		1,670	25,157,300	13,269,206	1,783,324	9,519,298	22,325,591
<i>Lycoming.</i>													
Coal, bituminous..	1				30	10		20	185,000	2,200	700	2,000	4,000
Iron ore.....	1				4	4			1,000	1,000	75	800	2,000
<i>McKean.</i>													
Coal, bituminous..	1	60	1		60	20		40	40,000	36,000	2,330	21,953	54,882
<i>Mercer.</i>													
Coal, bituminous..	34	814	37		1,994	258		1,732	1,712,225	1,130,827	170,437	659,875	1,869,071
Stone.....	5				17	17			5,350	5,500	2,255	*	13,409
<i>Mifflin.</i>													
Iron ore.....	11	55	3	25	218	95		123	97,200	73,339	6,014	35,350	122,900

STATISTICS OF MINING IN PENNSYLVANIA—CONTINUED.

MINERALS.	Establishments...	Steam en- gines.		Water- wheels.		Hands employed.				Capital.	Wages.	Materials	Products.	
		Horse-pow'r,	Number....	Horse-pow'r,	Number....	All.....	Men above ground....	Men under ground....	Boys above ground....	Boys under ground....	Dollars.....	Dollars.....	Tons	Dollars.....
<i>Monroe.</i>	1					2	2			500	265	185	*	500
<i>Montgomery.</i>														
Stone.....														
Iron ore	19	109	9			227	124	103		75,960	90,253	20,702	52,179	156,736
Marble.....	5	62	4			58	58			151,000	27,320	3,560	*	74,000
Stone	18					203	203			89,675	99,258	22,613	*	134,927
<i>Montour.</i>														
Coal, anthracite	2	90	3			126	21	78	3	115,000	72,164	14,529	52,180	102,336
Iron ore	6	473	11			307	80	213	3	171,239	176,572	18,540	63,525	314,685
Stone	2					62	62			28,000	28,850	2,001	*	32,923
<i>Northampton.</i>														
Iron ore	7	164	4			101	39	62		36,600	43,380	16,375	29,099	105,458
Slate.....	21	237	9	42	6	587	586		1	1,246,339	239,647	60,347	*	495,129
Stone	7	60	1	8	1	103	103			132,800	38,940	5,428	*	60,874
Zinc	1	676	12			400	189	180	40	400,000	167,721	25,823	*	235,555
<i>Northumberland.</i>														
Coal, anthracite.....	27	1,978	48			3,839	1,142	2,010	627	2,193,000	1,652,953	183,827	1,001,200	2,448,500
Iron ore	1					10	2	8		2,000	2,000	300	1,000	4,200
Stone	7					27	27			6,300	6,300	1,020	*	11,571
<i>Perry.</i>														
Iron ore	6	30	1			68	38	29	1	7,215	23,780	2,298	17,520	66,000
<i>Philadelphia.</i>														
Stone	3	22	3			92	92			190,000	46,000	7,000	*	134,000
<i>Pike.</i>														
Stone	1					9	9			3,000	1,600	150	*	3,800
<i>Schuylkill.</i>														
Coal, anthracite.....	91	18,106	272	1	1	15,778	3,187	8,611	3,094	17,151,985	6,039,774	1,179,261	3,860,144	10,289,043
<i>Somerset.</i>														
Coal, bituminous	11					25	3	22		3,885	3,665	1,024	6,510	10,761
<i>Tioga.</i>														
Coal, bituminous	3	30	2			1,683	308	1,375		1,000,000	650,000	6,100	733,562	1,114,889

[illegible]

* Quantities not specified. † Gallons.

As a *general review* of the most important regions of Pennsylvania, in an economical aspect, or those producing the largest quantities of coal, the following division may be made of the whole field, producing in all 24,000,000 tons in 1871.

1. The anthracite region, which produced in 1871, 15,000,000 tons.
2. The semi-bituminous regions of Blossburg, Barclay, M'Intyre, Snow Shoe, Phillipsburg, Johns own and Broad Top, which, in 1871, produced about 3,000,000 tons.
3. The bituminous region on the line of the Philadelphia and Erie railroad, or West Branch, producing 100,000 tons.
4. The block-coal region of Mercer county and vicinity, about 500,000 tons.
5. The Allegheny Valley region, about 400,000 tons.
6. The Westmoreland gas-coal region, on the Pennsylvania railroad, including only the coal carried eastward, 1,000,000 tons.
7. The Pittsburg coal trade, including that consumed at Pittsburg, the whole being about 4,000,000 tons, derived from (1) the Monongahela Navigation; (2) the Connellsville coal and coke region; (3) from the river below Pittsburg; (4) the Pittsburg, Cincinnati and St. Louis, or Pan Handle railroad; (5) the Pennsylvania and other railroads; (6) the Little Saw Mill Run railroad; and (7) the collieries above Pittsburg, used without passing over any of the great lines of transportation.

AGGREGATES—1871 AND 1872.

	1871.	1872.
Anthracite region.....	15, 000, 000	18, 929, 263
Blossburg, Barclay, M'Intyre, Snow Shoe, Phillipsburg, Johnstown and Broad Top, (semi-bituminous,)	3, 000, 000	.....
Philadelphia and Erie, or West Branch, (bituminous,)	100, 000	.....
Mercer county, (block-coal,).....	500, 000	.....
Allegheny Valley region, (bituminous,).....	400, 000	5, 209, 977
Westmoreland, (gas-coal,).....	1, 000, 000	.....
Pittsburg coal trade, (bituminous,).....	4, 000, 000	.....
<hr/>		
Total production in 1871, (tons,).....	24, 000, 000	
<hr/>		
Total production in 1872, (tons,)		24, 139, 240
Estimated local consumption, (tons,) {	Anthracite	2, 000, 000
	Bituminous	3, 000, 000
<hr/>		
Total consumption in 1872, (tons,)		29, 139, 240
		<hr/>

OUR IRON INTERESTS.

The production of iron in the United States gives employment to 940,000 persons. If we estimate that each of these represent a family of only three persons, we have the vast aggregate of 2,820,000 men, women and children, who directly draw their means of support from the iron source. Of these 940,000 operators, 40,000 are employed in preparing ore and fuel; 25,000 in working out fuel for rolling mills; 32,500 in blast furnaces; 3,500 in bloomeries, and 800,000 in the other and various departments of iron manufacture. The value of pig iron wrought in 1872 was \$75,000,000. The forges and rolling mills produced \$63,000,000; and the entire value of manufactured iron for the year was \$9,000,000,000, or nearly \$1,000 for every person employed.

English journals are loud in praises of our mineral deposits, and announce our iron resources as vast, and our development wonderful.

It was predicted that the American iron trade would manufacture a ton of iron for every bale of cotton produced in the Republic. And in 1872 we made 2,300,000 tons of pig and 400,000 tons of other iron—total 2,700,000 tons—equal to the number of bales in a short crop of cotton. This year, 1873, we shall probably exceed a full crop, and before 1880 we shall have 5,000,000 tons, and so distance cotton. These facts and estimates cause us to ask: Shall America be the grand iron producer and exporter of the world? Will nations look to us for iron as they now look to us for cotton? These things are possible to American enterprise and genius. Here is the native ore, the miners and the mills. Here are the railroads to transport the raw iron to market, the countless industries to utilize it, and the capital for all parts of the work.

Iron is the key to treasures more wonderful than those of the cavern in which was found the matchless Ninth Statute, and it will do for the Republic things that neither cotton nor wheat ever could have done. Possessed of this magic talisman, if we do not make the trade of the whole western world our own we shall be purblind and stupid. Already we have covered the land with amazing evidences of progress. Railroads and industrial developments gladden our eyes everywhere.

The interest of Pennsylvania in the iron business may be inferred from the fact that nearly one-half of the production and expenditures are embraced within the limits of this great State. Her iron manufacturers may well feel elated at the brilliant future that awaits them, for iron truly is the artificer of our national greatness.

Pig Iron in the United States.—2,000 lbs., 1 ton.

	1854.	1863.	1872.	Aggregate.
Anthracite Pig	339,435	577,638	1,197,010	2,114,083
Charcoal Pig	342,298	221,005	478,750	1,042,053
Bit. Coal and Coke....	54,485	157,961	712,500	924,946
Whole production shown by actual returns.....				<u>4,081,082</u>

Pig Iron in Pennsylvania—2,000 lbs., 1 ton.

	1870.	1871.	1872.	Aggregate.
Anthracite Pig	685,000	714,700	893,375	2,293,075
Charcoal Pig.....	not given.	53,161	95,700	148,861
Bit. Coal and Coke.....	29,941	90,719	200,000	320,660
Whole production of Pennsylvania.....				<u>2,762,596</u>

The yield of Rolling Mills in Pennsylvania, not including Railroad Mills, in 1866.

Merchant, Bar and Rod iron.....	118,013
Sheet iron.....	32,035
Plate iron.....	35,206
Hoop.....	11,595
Nails and Spikes.....	47,332
Aggregate.....	<u>244,181</u>

THE IRON TRADE OF PITTSBURG.

RECEIPTS of pig iron, iron ore and blooms by rail and by river, during the year 1872:

	By rail. 1872.	By river. 1872.	By river & rail.—1872.
	Tons.	Tons.	Tons.
P. Ft. Wayne and Chicago Railroad.....	151,500	.....	.....
Cleveland and Pittsburgh Railroad.....	108,190	.....	.....
Pennsylvania Railroad.....	86,385	.....	.....
Western Pennsylvania Railroad.....	27,440	.....	.....
Allegheny Valley Railroad.....	19,900	.....	.....
Pittsburg and Connellsville Railroad.....	21,010	.....	.....
P. C. and St. Louis Railroad.....	10,090	.....	.....
By river.....	.....	526	.....
Lake Superior ore.....	81,630	.....	.....
Iron Mountain ore.....	.....	.....	33,890
Lake Champlain ore.....	20,580
Native ore.....	4,010
Total.....	530,735	47,543	33,890

PIG METAL AND RAILS.

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SUMMARY OF PIG METAL SALES IN PITTSBURG FOR 1873.

1873.	GRADE OF IRON.			
	Bituminous and coke.—Number of tons.....	Anthracite.—No. of tons.....	Charcoal.—Number of tons.....	Total of all kinds. Number of tons.
January.....	33,770	7,630	38	41,438
February.....	12,725	5,980	1,531	20,236
March.....	12,425	2,690	811	15,926
April.....	5,065	2,410	495	7,970
May.....	5,400	4,052	2,206	11,658
June.....	6,730	5,120	1,206	13,056
July.....	8,730	5,920	427	15,077
August.....	8,260	2,220	320	10,800
September.....	12,670	4,580	542	17,792
October.....	2,985	1,115	423	4,523
November.....	3,820	300	245	4,365
December.....	26,830	1,740	220	28,820
Total.....	139,440	43,757	8,464	191,661

The following table exhibits the growth of the home production, importation and consumption of rails in the United States from 1849 to 1872, inclusive, together with the growth of the railway system of the country during the same period:

YEAR.	Total rails m'de in U. S.—Tons of 2,000 lbs.	Total rails imported.—Tons of 2,000 lbs.	Total consumption of iron & steel rails.	Miles of railroad built in U. S. in each year.
1849.....	24,318	69,163	93,481	1,369
1850.....	44,083	159,080	203,163	1,656
1851.....	50,603	226,350	276,953	1,961
1852.....	62,478	294,750	357,228	1,926
1853.....	87,864	358,794	446,658	2,452
1854.....	108,016	339,439	447,455	1,360
1855.....	138,674	153,019	291,693	1,654
1856.....	180,018	186,594	366,612	3,643
1857.....	161,918	215,166	377,084	2,491
1858.....	163,712	90,894	254,606	2,460
1859.....	195,454	83,958	279,412	1,821
1860.....	205,038	146,610	351,648	1,846
1861.....	187,818	89,388	277,206	621
1862.....	213,912	10,186	224,098	864
1863.....	275,768	20,506	296,274	1,050
1864.....	335,369	142,457	477,826	738
1865.....	356,292	63,327	419,619	1,277
1866.....	430,778	117,878	548,656	1,832
1867.....	462,108	184,840	646,948	2,227
1868.....	506,714	300,160	806,874	3,033
1869.....	593,583	336,500	930,086	4,977
1870.....	620,000	472,403	1,092,403	6,145
1871.....	775,733	566,202	1,341,935	7,453
1872.....	941,992	530,850	1,472,842	6,443

The production of rails, in 1871, in the United States, was 775,733 net tons; in 1872 it was 941,992 tons. Increase, 166,259 tons, or $21\frac{1}{2}$ per cent. The importation of foreign rails in 1871, was 566,202 net tons; in 1872 it was 530,850 tons. Decrease, 35,352 tons, or $6\frac{1}{4}$ per cent. The net gain of the American rail-maker in 1872, over his foreign rival, was, therefore, 201,611 net tons.

Of the total production of 941,992 net tons of rails in 1872, 94,070 tons were Bessemer steel rails.

In 1871 there were produced 60,042 net tons of steel and steel-headed rails. Increase, 34,028 tons, or $56\frac{2}{3}$ per cent. Of the 530,850 net tons of rails imported in 1872, 149,786 tons were steel rails.

In 1871 it is estimated that there were imported 83,887 net tons of steel rails. Increase, 65,889 tons, or $78\frac{1}{2}$ per cent.

It will be seen that, while the importation of rails of all kinds was 35,352 net tons less in 1872 than in 1871, the importation of steel rails increased 65,889 tons. The reduction in the importation of all iron rails was, therefore, 101,241 tons.

The total consumption of iron and steel rails, in 1871, was 1,341,935 net tons; in 1872 it was 1,472,842 tons. Increase, 130,907 tons. This increased consumption was more than equaled by the increased production of American mills, which was 166,259 tons, as above stated.

The importation in 1872 of old rails for re-manufacture, is carefully estimated at 170,000 gross tons. The custom regulations do not separate old rails from scrap iron; hence the necessity of estimating the quantity of each imported. The total importation of old and scrap iron in 1872, was 248,444 gross tons, valued at \$7,617,463, gold, of which Great Britain sent 108,181 tons, valued at \$3,203,746. In 1871 Great Britain sent us 139,812 tons, valued at \$3,255,849.

The aggregate *value of the imports* of iron and steel, and manufactures thereof, was \$60,575,514, gold, of which \$22,705,025 represents the value of new iron and steel railroad bars—\$14,498,012 of iron, and \$8,207,013 of steel.

During the ten months ended October 31, 1871, *the export* from the United States, of American railroad bars and rails, was 330 net tons; during the same period of 1872, the export was 746 tons. Increase, 126 per cent. These figures of our export trade are comparatively unimportant, but they show progress in the right direction.

LIST OF BESSEMER STEEL RAIL MILLS IN THE STATE OF
PENNSYLVANIA.

CAMBRIA IRON WORKS, *Johnstown.*

Two five-ton converters.

PENNSYLVANIA STEEL WORKS, *Harrisburg.*

Two five-ton converters, and a new plant, with four five-ton converters in course of construction.

The above are all of the rolling mills which now make Bessemer rails. The Bethlehem Iron Company, at Bethlehem, have in course of construction a Bessemer plant, nearly finished; and near Pittsburg, the Edgar Thomson Steel Works, for the manufacture of Bessemer rails, are in course of erection.

IRON—MANUFACTURES.

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IRON, FORGED AND ROLLED—1870.

	STEAM-ENGINES		WATER-WHEELS.		HANDS EMPLOYED.			CAPITAL.	WAGES.	MATERIAL.	PRODUCTS.
	Horse-power..	Number.....	Horse-power..	Number.....	All.....	Males above 16	Fem's above 16	Youth.....	Dollars.....	Dollars.....	Dollars.....
United States.....	85,383	821	9,347	202	47,891	45,977	22	1,892	27,002,829	83,834,268	128,062,627
State of Pennsylvania.....	36,398	368	1,637	33	21,865	20,974	20	871	12,243,483	39,581,157	57,976,471
Establishments.....											

IRON ROLLED—1870.

	Establishments.	Hands employed	Capital.....	Wages.....	Pig-iron—tons..	Dollars.....	Scrap iron—tons.	Dollars.....	Bloom—tons....	Dollars.....	Ore—tons.....	Dollars.....
United States.....	310	44,662	\$54,774,615	\$25,192,635	1,123,707	28,703,503	442,188	19,354,180	132,912	8,405,662	145,689	976,835
State of Pennsylvania.....	120	21,221	27,177,976	11,880,450	584,106	19,173,893	174,243	8,092,085	96,433	6,384,128	58,773	487,732

IRON FORGED—1870.

All materials Dollars.....	5,011,446 799,386	All products..	\$2,030,718 1,324,896
Other materi'ls	\$750,454 30,240	Other products tons.....	21,600 5,117
Dollars.....	1,765,029 123,409	Spikes—tons..	40,360 40,050
Tons wrought iron.....	23,172 1,656	Shafting—tons	145
Dollars.....	778,844 81,194	Railro'd screw spikes—tons.	600
Tons scrap iron	19,651 1,796	Railroad chairs and clamps— tons.....	3,315 2,265
Dollars... ..	657,696 363,500	Horse shoes— tons.....	14,270
Tons pig-iron..	93,350 85,650	Chains—tons..	3,449 1,126
Dollars.....	457,571 73,883	Axles—tons...	17,944 2,403
Tons coal.....	82,214 24,456	Anchors—tons	1,605
Dollars.....	601,852 127,160		
Tons blooms ..	8,376 1,446		
Wages.....	\$1,975,776 381,553		
Capital.....	\$4,620,959 1,115,784		
Handsemplo'd	3,588 692		
Establishme'ts	104 19		
United States.	104	United States.....	
State of Penn.	19	State of Pennsylvania.....	

IRON ROLLED—1870.

All products...	\$120,311,158 56,811,975
Rod-iron—tons	26,087
Number rolled car axles.....	34,821 34,615
Rails—tons....	531,605 281,445
Puddled bar— tons.....	33,631 21,276
Sheet—tons....	74,753 47,353
Plate—tons....	306,995 113,847
Bar—tons.....	488,834 233,854
Materials.....	69,176,646 38,896,771
Dollars.....	9,629,306 4,261,597
Coal—tons....	2,628,415 1,384,110
United States.....	.....
State of Pennsylvania.....	.....

IRON, PIG—1870.

Wages	\$12,475,250 5,014,455
Capital.....	\$56,145,326 26,376,059
Hands employed..	27,554 10,861
Daily capacity mel- ted metal in tons,	8,357 4,076
No. blast furnaces,	574 199
Establishments...	386 136
United States.....	.....
Pennsylvania.....	.....

PIG IRON, 1870—CONTINUED.

	Tons iron ore.....	Dollars.....	All other materials	All materials.....	Tons pig iron.....	Dollars.....
United States.....	\$4,303,847	\$24,745,445	2,506,834	45,498,017	2,052,821	69,640,493
Pennsylvania.....	2,337,286	13,277,525	1,346,982	22,638,492	1,033,272	32,636,410

IRON, NAILS AND SPIKES, CUT AND WROUGHT.

	STEAM ENGINES, WATER WHEELS		HANDS EMPLOYED.				Materials.	Products.
	Establishments,		Horse power,	Number.....	All.....	Males above sixteen.....	Fema's above fifteen.....	Youth.....
United States.....	142	10,775	2,503	65	7,770	6,062	381	1,327
Pennsylvania.....	31	2,915	115	1	2,036	1,504	22	420

IRON RAILING, WROUGHT.

	STEAM ENGINES WATER WHEELS		HANDS EMPLOYED.		Capital.	Wages.	Materials.	Products.
	Horse power	Number	All.....	Youth.....				
United States.....	197	27	630	25	\$405,200	\$321,101	\$533,116	\$1,268,756
Pennsylvania.....	12	3	55	1	29,100	18,176	15,651	55,588

IRON PIPE, WROUGHT.

	STEAM ENGINES		WATER WHEELS		HANDS EMPLOYED.				Capital.	Wages.	Materials.	Products.
	Horse power	Number	Horse power	Number	All.....	Males above sixteen.....	Fema's above fifteen.....	Youth.....				
United States.....	1,715	26	25	1	2,129	1,988	141	5,311,095	1,155,910	4,872,907	7,369,194
Pennsylvania.....	1,170	16	1,288	1,195	93	4,209,000	709,710	2,931,903	4,552,934

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Dollars.....		488,950 137,350
Tons scrap iron		14,695 3,005
Dollars.....		3,795,050 3,012,610
Tons pig iron .		100,881 80,725
Dollars.....		382,533 105,950
Tons iron ore..		45,168 8,036
Wages		\$1,195,964 707,589
Capital.....		\$1,503,733 2,446,600
Hands emplo'd.		2,902 1,473
Establishments	82 43	
United States.....		
State of Pennsylvania.....		

All products..		\$7,647,054 4,881,431
Tons blooms..		\$110,808 68,238
All materials..		\$5,685,466 3,683,300
Other materi'ls		\$33,340 16,120
Dollars.....		\$79,904 234,429
Tons coal.....		143,496 105,000
Dollars.....		602,689 176,341
Bushels char- coal.....		6,893,447 1,998,308
United States.....		
State of Pennsylvania.....		

MINERAL STATISTICS.

STATISTICAL TABLE of the Blast Furnaces of Pennsylvania, giving location, name of furnace, owner or lessee, post office address, fuel, ores and production of iron in 1872, taken mainly from the "American Manufacturer," as compiled by the editor, Joseph D. Weeks.

LOCATION.	Name of Furnace.	Owner or lessee.	P. O. address.	Fuel.	Ores.	Iron made in 1872.
<i>Adams county.</i>						
Chestnut Grove Furnace,	Chestnut Grove	Ahl & Brother	Idaville.	Charcoal	Hem. and Mag.	716 $\frac{3}{4}$
<i>Allegheny county.</i>						
Allegheny City	Superior	Harbaugh, M. & Owen,	Pittsburg	Coke	L. S.	21,000
do	do	do	do	do	L. S. and Pa.	17,136
Etna borough.	Isabella	Isabella Furnace Co.	do	do	do	
Etna borough.	do	do	do	do	Native	
Hites Station.	Clinton	Graeff, Bennett & Co.	do	do	L. S.	11,200
Pittsburg	Eliza	Laughlins & Co.	do	do	L. S. and native,	22,669 $\frac{1}{4}$
Pittsburg	do	do	do	do	do	13,361 $\frac{3}{4}$
Pittsburg	Lucy	Klonan, & Carnegie Bus	do	do	L. S.	25,853
Pittsburg	Schoenberger.	Schoenberger, R. & Co	do	do	Mar. L. S. and Mo.	1,400
Pittsburg	do	do	do	do	do	
Pittsburg	Soho	Morehead, M'C. & Co.	do	do	L. S.	2,061 $\frac{1}{2}$
<i>Armstrong county.</i>						
Armstrong county	Mahoning.	J. A. Colwell & Co.	Kittanning	do	Lime and R. H.	12,862 $\frac{1}{2}$
Brady's Bend.	Brady's Bend	Brady's Bend I. Co.	Brady's Bend	do	Carb. and Nat.	8,960
do	do	do	do	do	do	2,464
Brady's Bend.	do	do	do	do	do	3,360
Brady's Bend.	do	do	do	do	do	
Cowan-shannoc.	do	do	do	do	do	
Monticello	Monticello	M'Knight, Porter & Co.	Monticello	do	L. S. and Lime.	
Stewardson.	Stewardson.	F. B. & A. Laughlin.	Orsville.	do	Native.	
Mahoning creek.	Pine Creek.	Brown & Mosgrove.	Kittanning.	do	Nat. Lime	
Valley township						
<i>Beaver county.</i>						
Homewood.	Homewood.					
<i>Bedford county.</i>						
Hopewell.	Hopewell	L. Eichelberger & Sons	Hopewell	Charcoal	Brown Hematite.	1,792
Riddlesburg.	Kenble	Kenble Coat and L. Co.	Riddlesburg	Coke	Broad Top.	16,834 $\frac{1}{4}$
Riddlesburg.	do	do	do	do	do	
<i>Berks county.</i>						
Birdsboro.	Hampton.	E. & G. Brooke.	Birdsboro'	Anthracite.	Hem. and Mag.	
Birdsboro'	Keystone.	do	do	do	do	
Birdsboro.	do	do	do	do	do	
Birdsboro'	do	do	do	do	do	

Douglasville	Hopewell	Clingan & Buckley	Douglasville	Charcoal	Red Ox.	1, 098
Joanna	Joanna	Levi B. Smith & Co.	Joanna	do	Mag and Hem	853½
Kutztown	Kutztown	Kutztown Iron co.	Leesport	Anthracite		Building.
Leesport	Leesport	Leesport Iron co.	Leesport	do	Mag and Hem	
Lenhardtsville	Maiden Creek	G. Merkle, heirs	Lenhardtsville	Charcoal	Brown Hematite	3, 690½
Monocacy	Monocacy	Wright, Cook & Co.	Monocacy	Anthracite	Hem and Mag.	3, 272¼
Moslem	Moslem	Bushong & Co.	Reading	do	do	Building.
Mt. Laurel	Mt. Laurel	Clymer Iron co.	Temple	do	do	18, 113¾
Reading	Henry Clay	Eckert & Bro	Reading	do	do	11, 546
Reading	do	do	do	do	do	
Reading	Keystone	Bushong & Co.	do	do	do	
Reading	do	do	do	do	do	
Reading	Mt. Penn.	Huntzinger & Co.	Charcoal	do	do	728
Reading	Reading	Seyfert, M Manus & Co	Anthracite	do	do	6, 478
Reading	do	do	do	do	do	
Robesonia	Robesonia	White & Ferguson	Robesonia	do	Cornwall	5, 725½
Robesonia	do	do	do	do	do	
Temple	Oley	W. H. Clymer & Co.	Temple	Charcoal	Mag and Hem	1, 904
Temple	Temple	Temple Iron co.	do	Anthracite	do	7, 516¼
Temple	do	do	do	do	do	
Topton	Topton	Topton iron co.	Topton	do		Building, 1873.
<i>Blair county.</i>						
Altoona	Allegheny	S. C. Baker	Altoona	Coke	Nat H.	3, 700
Bennington	Bennington	Blair Iron and Coal co.	Bennington Fur.	do	L. S. Fos. and H.	4, 592
Frankstown	Frankstown	do	Frankstown	do	do	
Holidaysburg	Holidaysburg	do	Holidaysburg	do	do	11, 088
Holidaysburg	do	do	do	do	do	
Houston township	Rebecca	Johnson & Hemphill	Martinsburg	Anthracite	Hem	2, 240
M'Kees	Martha	do	M'Kees	Coke	H. and Fos.	2, 136
Roaring Springs	Rodman	Charles Knap & Co	Roaring Springs	do	Bloomfield	
Roaring Springs	do	do	do	do	Hem	
Sabbath Rest	Elizabeth	Martin Bell & Co.	Sabbath Rest	do	B. H.	
Sarah	Sarah	E. Hammond	Sarah	Charcoal	B. H. and Fos	1, 736
Springfield	Springfield	John Royer	Springfield Furn	do	B. H.	
Tyrone	Bald Eagle	Lyron, Shorb & Co.	Pittsburg	do	do	
Williamsburg	Juniata	Williamsb'g man f. co	Williamsburg	Anthracite	Hem and Fos.	2, 346¼
Yellow Springs	Etna	Geo. D. Isett & Bro	Yellow Springs	Charcoal	do	1, 008
<i>Bucks county.</i>						
Riegelsville	Durham I. works.	Cooper & Hewit.	Riegelsville	Anthracite	Mag and Hem	13, 855½
Riegelsville	do	do	do	do	do	
<i>Cambria county.</i>						
Johnstown	Johnstown	Cambria Iron co.	Johnstown	Coke	L. S. and Na.	
Johnstown	do	do	do	do	do	
Johnstown	do	do	do	do	do	

TABLE OF BLAST FURNACES—CONTINUED.

LOCATION.	Name of Furnace.	Owner or lessee.	P. O. address.	Fuel.	Ores.	Iron made in 1872.
<i>Cambria county—Con.</i>						
Conemaugh.....	New Conemaugh.	Cambria Iron co.....	Johnstown.....	Coke.....	L. S. and Na.....	
<i>Carbon county.</i>						
Parryville.....	Carbon Iron works	Carbon Iron co.....	Parryville.....	Anthracite.....	$\frac{2}{3}$ Hem.....	33,597 $\frac{3}{4}$
Parryville.....	do	do	do	do	do	
Parryville.....	do	do	do	do	do	
<i>Centre county.</i>						
Parryville.....	East Penn	John Balliet.....	Parryville.....	do	do	
<i>Bellevue county.</i>						
Bellefonte.....	Legan.....	Valentine & Co.....	Bellefonte.....	Charcoal.....	Hem.....	2,352
Howard Iron works.....	Howard.....	Lauth, Thomas & Co.....	Howard.....	do	Brown Hematite.....	
do	do	do	do	Coke.....	do	
Milesburg.....	Payle.....	C. R. & L. Curtin.....	Milesburg.....	Charcoal.....	Pipe.....	1,568
Milesburg.....	Hecla.....	M. Coy & Linn.....	do	do	B. H.....	1,568
<i>Chester county.</i>						
Barnestown.....	Isabella.....	Smith & Bros.....	Barnestown.....	Charcoal.....	Magn. and Hem.....	747
Phoenixville.....	Phoenixville.....	Phoenix Iron co.....	Phoenixville.....	Anthracite.....	B. H. and Mag.....	23,199 $\frac{1}{4}$
do	do	do	do	do	do	
Phoenixville.....	do	do	do	do	do	
<i>Clarion county.</i>						
Red Bank Furnace.....	Red Bank.....	Reynolds & Morehead.....	Red Bank Furn.....	Coke.....	N. Hem.....	5,680
Clarion.....	Shigo.....	Lyon, Shorb & Co.....	Pittsburg.....	Charcoal.....	Nat.....	2,100
<i>Columbia county.</i>						
Bloomsburg.....	Bloom.....	Wm. Neel & Sons.....	Bloomsburg.....	Anthracite.....	Fos.....	7,604 $\frac{1}{4}$
Bloomsburg.....	Ironville.....	Bloomsburg Iron co.....	do	do	Nat. Fos.....	12,810 $\frac{1}{2}$
Bloomsburg.....	do	do	do	do	do	
<i>Cumberland county.</i>						
Boiling Springs.....	Carlisle Iron works	C. W. & D. V. Ahl.....	Carlisle.....	Charcoal.....	Hem and Lime.....	1,713 $\frac{1}{2}$
Pine Grove Furnace.....	Pine Grove.....	South M. Imp. co.....	Pine Grove Furn.....	do	Hem.....	2,725
Southampton.....	Big Pond.....	P. A. Ahl & Bro.....	Newville.....	do	do	1,904
<i>Dauphin county.</i>						
Baldwin.....	Penn'a Steel co.....	Penn'a Steel co.....	Steel Works.....	Anthracite.....	Various.....	
Dauphin.....	Dauphin.....	Dr. Heck.....	Dauphin.....	do	do	
Harrisburg.....	Harrisburg.....	Price Bros.....	Harrisburg.....	do	Magn. Hem. Fos.....	4,489
Harrisburg.....	Lochiel.....	Lochiel Rolling Mill co.....	do	do	Nat.....	
Harrisburg.....	Paxton.....	M. Cormick & Co.....	do	do	$\frac{1}{3}$ Mag. $\frac{2}{3}$ Hem.....	10,119 $\frac{1}{2}$
Harrisburg.....	do	do	do	do	do	
Harrisburg.....	Wister.....	J. & J. Wister.....	do	do	Magn. Hem. Fos.....	7,319 $\frac{1}{4}$
Middletown.....	Cameron.....	Cameron Iron co.....	Middletown.....	do	Hem.....	8,311

Swatara Station..... Union Deposit..... <i>Erie county.</i>	Manada..... Union Deposit..... <i>Erie.....</i>	Grubb & Fland..... Camden R. Mill Co.....	Swatara Station, Union Deposit.....	Charcoal..... Anthracite.	Cornwall.....	1 456
<i>Fayette county.</i>	<i>Erie.....</i>	Rawle, Noble & Co.....	Erie.....	Bituminous.....	L. S. C'n and N. Y.	7, 233¼
Dunbar..... Fairchance.....	Dunbar..... Fairchance.....	Dunbar I. Co..... Fairchance I. Co.....	Dunbar..... Uniontown.....	Coke..... do.....	1-5 Lake 4-5 Native Native.....	12, 574¼ 5, 152
<i>Franklin county.</i>	<i>Franklin.....</i>	R. M. Slater..... Thad. Stevens estate..... Mt. Alto I. Co..... S. Pa. R. R. and I. Co., Hunter & Springer.....	Carrick Furnace, Graftenberg..... Mt. Alto I. Co..... Richmond Fur..... St. Thomas.....	Charcoal..... do..... do..... do..... do.....	B. H..... Native..... B. H..... Native..... Hem.....	1, 092 2, 440 1, 100 1, 372½
<i>Huntingdon county.</i>	<i>Huntingdon.....</i>	Davis & Co..... Logan I. and Steel Co..... do..... Ed. A. Green & Co..... Rock Hill I. and C. Co., do..... G. & L. H. Schoenberger, Lyon, Shorb & Co.....	Barree Forge..... Greenwood Fur..... do..... Mill Creek..... Orbisonia..... do..... Spruce Creek..... Rock Spring.....	Charcoal..... do..... do..... do..... Coke..... do..... Charcoal.....	Hem. and Fos..... do..... do..... do..... do..... do..... Hem.....	1, 503 3, 573
<i>Indiana county.</i>	<i>Indiana.....</i>	S. C. Baker.....	Altoona.....	Anthracite.....	Hem.	In blast, 1872.
<i>Lancaster county.</i>	<i>Lancaster.....</i>	E. Haldeman..... do..... Chestnut Hill I. Ore Co..... do..... do..... Denny & Hess..... C. S. Kauffman..... C. B. Grubb & Son..... Thomas & Peacock..... Cottrell & Benson..... H. Musselman & Co..... Bates, Grubb & Co..... Safe Harbor I. Co..... H. M. Watts & Sons..... do.....	Chickies..... do..... Columbia..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do.....	Anthracite..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do.....	Cornwall..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do..... do.....	10, 043 14, 110¼ ? 7, 328¼ 5, 081½ 6, 160 6, 720 5, 837½ 1, 456
<i>Lawrence county.</i>	<i>Lawrence.....</i>	Crowther I. Co..... Samuel Kimberly.....	New Castle..... do.....	Charcoal..... Anthracite..... do..... do.....	Cornwall..... Hem..... Lime Hem. and Mag.....	11, 200
New Castle..... New Castle.....	Clara..... Etna.....			Coke..... Block and coke,	L. S. L. S. and L. C.	6, 453½

TABLE OF BLAST FURNACES—CONTINUED.

LOCATION.	Name of furnace.	Owner or lessee.	P. O. address.	Fuel.	Ores.	Iron made in 1872.
<i>Lawrence Co.—Con.</i>						
New Castle.	Etna.	Samuel Kimberly.	New Castle.	Block and coke.	L. S. and L. C.	8, 174 ³ / ₄
New Castle.	Neshannock.	Neshannock I. Co.	do.	Coke.	L. S.	
New Castle.	Onondaga.	Onondaga.	do.	do.		?
New Castle.	do.	do.	do.	do.	L. S.	?
New Castle.	Sophia.	Reis, Brown & Berger.	do.	do.	do.	
New Castle.	Little Pet.	do.	do.	do.	do.	
New Castle.	Rowena.	do.	do.	do.	do.	
New Castle.	Hope.	Jos. S. Brown & Co.	Rose Point.	Charcoal.	Hem.	1, 883 ³ / ₄
Rose Point.	Wampum.	Wampum I. Co.	Wampum.	Bituminous.	L. L. and Fos.	7, 620 ¹ / ₂
<i>Lebanon county.</i>						
Cornwall.	Bird Coleman.	R. W. Coleman, heirs.	Cornwall.	Anthracite.	Cornwall.	?
Cornwall.	Cornwall Anth.	do.	do.	do.	do.	?
Cornwall.	do.	do.	do.	do.	do.	?
Cornwall.	Cornwall Charcoal.	do.	do.	Charcoal.	do.	?
Cornwall.	North Cornwall.	W. C. Freeman.	do.	do.	Mag.	Building.
Lebanon.	Donaghmore.	R. W. Coleman, heirs.	Lebanon.	Anthracite.	Cornwall.	Building.
Lebanon.	do.	do.	do.	do.	do.	
Lebanon.	Lebanon.	G. D. Coleman.	do.	do.	do.	13, 480 ¹ / ₄
Lebanon.	do.	do.	do.	do.	do.	
Lebanon.	do.	do.	do.	do.	do.	
Lebanon.	Lebanon Valley.	Melly & Nutting.	do.	do.	do.	Building.
Sheridan.	Sheridan.	W. F. Kaufman & Co.	Sheridan.	do.	do.	4, 692 ³ / ₄
Sheridan.	do.	do.	do.	do.	do.	Building.
<i>Lehigh county.</i>						
Alburtis.	Lock Ridge.	Thomas I. Co.	Alburtis.	Anthracite.	$\frac{1}{2}$ N. J. Mag.	24, 942
Alburtis.	do.	do.	do.	do.	$\frac{2}{3}$ Red H.	
Allentown.	Allentown I. Wks.	Allentown I. Co.	Allentown.	do.	do.	
Allentown.	do.	do.	do.	do.	do.	
Allentown.	do.	do.	do.	do.	do.	36, 639 ³ / ₄
Allentown.	do.	do.	do.	do.	do.	
Allentown.	do.	do.	do.	do.	do.	
Allentown.	do.	Allentown R. M. Co.	do.	do.	do.	?
Allentown.	No. 1.	do.	do.	do.	do.	?
Allentown.	No. 2.	Lehigh I. Co.	do.	do.	do.	10, 420 ¹ / ₂
Allentown.	Lehigh Crane I. W.	do.	do.	do.	do.	
Catasauqua.	Lehigh Crane Iron Co.	Lehigh Crane Iron Co.	Catasauqua.	do.	B. H. and Mag.	

Catsauqua.....	Lehigh Crane I. W.	Lackawanna I. & C. Co	Seranton	Anthracite.....	E. H. and Mag.
Catsauqua.....	do.....	do.....	do.....	do.....	do.....
Catsauqua.....	do.....	do.....	do.....	do.....	do.....
Catsauqua.....	do.....	do.....	do.....	do.....	do.....
Catsauqua.....	do.....	do.....	do.....	do.....	do.....
Coplay	Lehigh Valley I. W.	Lehigh Valley I. Co.	Coplay	do.....	do.....
Coplay	do.....	do.....	do.....	do.....	do.....
Coplay	do.....	do.....	do.....	do.....	do.....
Emaus.....	do.....	do.....	do.....	do.....	do.....
Emaus.....	do.....	do.....	do.....	do.....	do.....
Glendon.....	do.....	do.....	do.....	do.....	do.....
Glendon.....	do.....	do.....	do.....	do.....	do.....
Macungie.....	do.....	do.....	do.....	do.....	do.....
<i>Luzerne county.</i>					
Seranton	Lackawanna I. W.	Lackawanna I. & C. Co	Seranton	N. J. Mag.	
Seranton	do.....	do.....	do.....	do.....	
Seranton	do.....	do.....	do.....	do.....	
Seranton	do.....	do.....	do.....	do.....	
Seranton	do.....	do.....	do.....	do.....	
<i>Mercer county.</i>					
Hickory township....	Sharon.....	Boyce, Rawle & Co.	Sharon.....	Block.....	L. S.....
Sharon	Keel Ridge	Kimberly, Carnes & Co	do.....	Bituminous.	do.....
Sharon	Stewart	Stewart Iron Co.,	do.....	do.....	Jackson
Sharon	do.....	do.....	do.....	do.....	do.....
Sharon	Westernman	Westernman I. Co.,	do.....	do.....	L. S.....
Sharon	do.....	do.....	do.....	do.....	do.....
Sharpville.....	Allen	Henderson, Allen & Co	Sharpville..	Block.....	do.....
Sharpville.....	Douglass.....	Pierce, Kelly & Co.,	do.....	do.....	do.....
Sharpville.....	do.....	do.....	do.....	do.....	do.....
Sharpville.....	Mt. Hickory	Mt. Hickory Iron Co.	do.....	do.....	do.....
Sharpville.....	do.....	do.....	do.....	do.....	do.....
Sharpville.....	Ormsby	Ormsby, Fish & Trim,	do.....	do.....	do.....
Sharpville.....	Sharpville	James Pierce & Son.,	do.....	do.....	do.....
Sharpville.....	Spearnan	Spearnan Iron Co.	do.....	do.....	do.....
Sharpville.....	do.....	do.....	do.....	do.....	do.....
West Middlesex....	Fannie.....	Wheeler Iron Co.,	W. Middlesex	do.....	Native and L. S.
West Middlesex....	Middlesex	Middlesex Furnace Co	do.....	do.....	do.....
West Middlesex....	Shenango	Shenango Furnace Co.	do.....	do.....	Red Spec.....
West Middlesex....	Shenango	do.....	do.....	do.....	do.....
Wheatland.....	Wheatland.....	Jas. Wood's Sons & Co.	Wheatland..	do.....	L. S.....
Wheatland.....	do.....	do.....	do.....	do.....	do.....
Wheatland.....	do.....	do.....	do.....	do.....	do.....
<i>Mifflin county.</i>					
Lewistown	Glamorgan.....	Glamorgan Iron Co.	Lewistown..	Anthracite.....	Fos. and II.
Lewistown	do.....	do.....	do.....	do.....	do.....

IRON—MANUFACTURES.

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	North Penn.	North Penn iron eo.	Bergen	Anthracite	Hem and Mag.	6, 939
Bingen.....	Glendon I. works.	Glendon iron eo.	Easton.....	do	do	
Glendon.....	do	do	do	do	do	66, 411½
Glendon.....	do	do	do	do	do	
Glendon.....	do	do	do	do	do	Building.
Glendon.....	Uhler I. works.	Peter Uhler	do	do	do	584¾
Hillertown.....	Saucon.....	Saucon iron works.	Hillerton.....	do	do	19, 520
Freemanburg.....	Northampton	Northampton iron co.	do	do	do	
Redington.....	Colerain iron eos.	W. T. Carter & Co.	Freemansburg	do	do	
Redington.....	do	do	Redington.....	do	do	20, 564¼
Northumberland co.			do	do	do	
Chulasky.....	Chulasky	Waterman & Beaver.	Chulasky.....	Anthracite.....	Fos. and Mag.	4, 772¼
Northumberland.....	Northumberland	Jos. S. Marsh.	Northumberland	do	do	Building.
Shamokin.....	Shamokin.....	S. Longnecker.....	Shamokin.....	do	do	
Perry county.						
Duncannon.....	Duncannon	Duncannon iron co.	Duncannon.....	Anthracite.....	Fos. and Corn.	7, 963
Newport.....	Marshall.....	Eagle, Schultz & Co.	Newport.....	do	Mag. and Hem.	Building.
Philadelphia county.						
Kensington.....	Philadelphia.....	Stephens, Robt's & Son	Philadelphia.....	Anthracite.....	Mag. and Hem.	Building.
Schuylkill county.						
Jefferson.....	Jefferson.....	J. M. Kauffman & Bros	Auburn.....	Charcoal.....	Hem.....	1, 192¾
Minersville.....	Minersville.....	Minersville C. & I. co.	Minersville.....	Anthracite.....	Hem. and Mag.	Building.
New Ringgold.....	Ringgold.....	Ringgold I. & C. co.	New Ringgold.....	do	do	Building.
Pine Grove.....	Stanhope.....	Wynkoop Bros.	Pine Grove.....	do	Cornwall.....	?
Pottsville.....	Pioneer.....	Atkins Bros.	Pottsville.....	do	Mag. and Hem.	16, 700
Pottsville.....	do	do	do	do	do	
Pottsville.....	do	do	do	do	do	Building.
Port Carbon.....	Schuylkill iron co.	Schuylkill iron co.	Port Carbon.....	do	do	1, 992
St. Clair.....	St. Clair.....	Jas. Lannigan.....	St. Clair.....	do	do	Building.
Union county.						
Winfield.....	Union.....	Beaver, Marshall & Co	Winfield.....	Anthracite.....	Lime and Fos.	4, 626¾
Wayne county.						?
Wayne township.....	Matilda.....	Perfer, Rohrer & Co.	Mt. Union.....	Anthracite.....	Mag. and Fos.	
Westmoreland county.						
Fountain Mills.....	Charlotte.....	Everson, Knap & Co.	Fountain Mills..	Coke.....	L. S. and Nat.	Building.
York county.						
Wrightsville.....	Aurora.....	Wrights iron co.	Wrightsville.....	do	do	?
York Furnace.....	York.....	John Bair & Co	York Furnace..	Charcoal.....	Hem.....	597

The following list of projected furnaces was taken from the classified list of Blast Furnaces, prepared by James M. Swank, Secretary of the American Iron and Steel association.

PROJECTED.

East Pennsylvania iron company, Lyons, Berks county. Propose to build a furnace between Lyons' and Bowers' stations, on the East Pennsylvania railroad.

A joint stock company has been formed for the purpose of erecting a furnace at Royer's Ford, Chester county.

Warrick iron company, Pottstown, Montgomery county. This company own a rich mine of magnetic ore in Hereford township, Berks county, which they call "steel ore," and they propose to erect a furnace as soon as the Colebrookdale railroad is extended to their ore fields.

Under the auspices of the Philadelphia and Reading railroad company, it is announced that 100 blast furnaces are to be erected near the coal lands of the Schuylkill Valley. It is rumored that fifteen starts have already been made, but no authentic information concerning them can be obtained.

Two new furnaces are being erected in Keating township, Clinton county, by an Elmira party. They are to cost \$200,000.

Anthracite furnaces, of one stack each, are projected by C. B. Grubb & Son, and Columbia steel and iron company, at Columbia, Lancaster county.

C. W. Ahl & Son intend to build one stack, 60x15, weekly capacity, 150 tons, iron frame and jacket, in 1873-4, at Boiling Springs, Cumberland county.

Another furnace is talked of at Mechanicsburg, Cumberland county.

The Philadelphia and Reading coal and iron company, it is said, have leased the Carlisle iron works property for ninety-nine years, and purchased the Big Pond Furnace property, and 6,000 acres of land, for \$200,000.

Wampum Furnace company, Wampum, Lawrence county, intend to build another stack in 1874.

A company has been organized at Corry, Erie county, and the erection of a furnace of great capacity is contemplated.

Several furnaces are projected in Southampton township, Bedford county.

ROLLING MILLS WHICH MAKE RAILROAD BARS.

The following list gives the names of all rail mills in the State of Pennsylvania which rolled railroad bars in 1872, or were prepared to roll them in 1873. It has been compiled from original sources of information in every instance.

Mills which are strictly bar mills, but are prepared to roll light rails for street and mine railways and for no others, are excluded from this list.

PENNSYLVANIA.

Danville Iron Works; Danville Iron Co.; Danville. Established 1870.
Pennsylvania Iron Works; Waterman & Beaver; Danville. Established 1846. A second mill was added in 1854.

National Iron Works; National Iron Co.; Danville. Established 1847.
Allentown Rolling Mill; Allentown Rolling Mill Co.; Allentown. Established 1860.

Pennsylvania Steel Works; Pennsylvania Steel Co.; Baldwin Station, near Harrisburg. Steel Works P. O. Established 1866.

Lackawanna Iron Works; Lackawanna Iron and Coal Co.; Scranton. Established 1847.

Columbia Steel and Iron Works. W. G. Case & Son; Columbia. Established 1854.

Philadelphia and Reading Rolling Mill; Philadelphia and Reading Railroad Co.; Reading. Established 1867. Commenced rolling rails in March, 1868.

Phoenix Iron Works; Phoenix Iron Co.; Phoenixville. Established 1846.
Pottsville Rolling Mill; Atkins Brothers; Pottsville. Established 1852.
Palo Alto Rolling Mill; Benjamin Haywood, proprietor; Pottsville. Established 1855.

Cambria Iron Works; Cambria Iron Co.; Johnstown. Established 1853.
Superior Rolling Mill; Harbaugh, Mathias & Owens; Pittsburg. Established 1865.

Bethlehem Rolling Mill; Bethlehem Iron Co.; Bethlehem. Established 1860.

Lochiel Iron Works; Lochiel Rolling Mill Co.; Harrisburg. Established 1865.

Brady's Bend Iron Works; Brady's Bend Iron Co.; Brady's Bend. Established 1841.

Wheatland Rolling Mill; James Wood, Sons & Co.; Wheatland, Mercer county. Established 1871.

REVIEW OF THE GROWTH OF THE IRON TRADE IN THE UNITED STATES.

The impetus given to the iron industry in the United States within the past year, and the magnificent proportions it has assumed, necessitates a review of the history of that industry since its early days.

It is but little more than half a century since iron has been made in sufficient quantities in the United States to give it prominence as a merchantable product.

Although considerable activity existed in the colonies during the war of independence, in the manufacture of iron, no statistics of product are attainable. The war checked the American production, and it was not until 1794 that any duties on foreign iron were imposed by the Federal Congress.

The price of bars in the United States, from 1793 to 1807, were as follows:

1793 to 1797	\$90@95 per ton.
1800 to 1801.....	100@101 “
1803 to 1807.....	110@115 “

From 1802 to 1810, the iron industry of our country nearly perished, and the war of 1812, with its embargo, alone revived it. Pig metal then cost to manufacture, \$28 75, and bars, \$83 75.

In 1810, according to the report of the Secretary of the Treasury of that date, the production of pig iron was as follows:

Number of furnaces.....	153
Product of pig iron, (tons,).....	53,908
Number of forges.....	330
Product of bar iron, (tons,)	24,541
Number of hammers.....	316
Number of rolling and slitting mills.....	34
Consuming, (tons,).....	6,500
Number of naileries.....	410
Product of nails, (pounds,).....	15,727,914

In Pittsburg, in 1818 and 1819, English bars sold at from \$190 to \$200; boiler plate, \$350; sheet, \$360, and hoops at \$250 per ton, all of English manufacture.

In 1810, however, the total value of pig iron and castings was \$3,616,457, and of wrought iron, \$10,998,086. Ten years later this value was reduced

to \$2,230,275 for pig iron, and \$4,640,669 for wrought iron, under a free trade epidemic.

In 1830, the pig metal product was 137,075 tons; of bar, 90,768 tons, and of bloomed bar iron, 8,194 tons. The value of the manufactures of pig iron then being \$4,757,403, and of wrought iron, \$16,737,251. In that year it was stated that "at least 600 tons of iron, made in Pittsburg, are manufactured into other articles before it leaves the city, from steam engines of the largest size to a three-penny nail." The quantity of iron rolled in Pittsburg in 1830 was 9,282 tons, 2 cwt., an increase of 200 per cent. in two years.

In 1840 the production of pig metal and wrought iron was given as follows:

Number of furnaces.....	804
Product of pig metal, (tons,).....	286,903
Forgeries, bloomerics and rolling mills	795
Product of wrought iron, (tons,).....	197,233
Capital invested.....	\$20,432,131
Fuel consumed, (tons,).....	1,528,110
Men employed.....	30,497

Thus showing a very decided improvement in the industry. The probability is, however, that in this return the foundry castings are returned with the pig metal, the number of furnaces given inducing to that belief. The total consumption of pig iron in the country, in 1840, amounted to 411,903 tons. In 1846, the industry was prostrated by a compromise tariff, looked upon as the abandonment of the protective policy, and the production of pig iron fell off to 230,000 tons. In 1841, nearly all the works were closed, and 300,000 persons out of employment.

The tariff of 1842 revived this fluctuating industry once more, and in 1844 and 1845 the railway fever created a great demand and stimulated production, until the tariff of 1846 again paralyzed this industry. To show the condition of affairs then, we find that in 1845 the production was as follows:

Number of furnaces	540
Product of pig iron, (tons,).....	436,000
Bloomeries, forgeries and rolling mills.....	950
Product of bar iron, (tons,)	291,600
Product of blooms, (tons,)	30,000

In 1847 the anthracite product of Pennsylvania had reached 389,350 tons, while the rail mills of the State produced 40,996 tons of rails, being about one-half of the product of one works alone in 1872, only twenty-five

years later. This product was reduced one-half, however, within two years, owing to the tariff of 1846.

In 1850, there were as follows:

Number of furnaces	377
Product of pig iron, (tons,)	564,755
Number of mills, forges, &c.	522
Product of wrought iron, (tons,)	<u>278,044</u>

The total amount of pig iron consumed in the United States was 1,042,929 tons.

In the next year, 1851, we produced 413,000 tons of iron, and imported 464,559 tons.

In 1852, the production of pig reached 540,755 tons, and importations 501,158 tons.

In 1853, the production was estimated at 805,000 tons.

In 1854, the product of pig iron was returned at 424,234 tons; in 1855, at 439,186 tons; and in 1856, at 626,500 tons, the panic in 1854 causing the reduction. And in the years 1854 and 1855, of wrought iron as follows:

	1854.	1855.
Blooms	28,079	28,600
Hammered bars	2,575	2,675
Sheets and plates	20,108	21,304
Nail rods, bars, &c.	104,535	121,550
Rails	<u>74,445</u>	<u>82,107</u>

In 1855, the consumption of iron in the United States was 1,310,000 tons, being an increase of 200 per cent. in ten years.

In 1860, we find the return of the census to give—

Number of furnaces	574
Product of pig metal, (tons,)	<u>987,559</u>

Increase over 1850, 100 per cent. in quantity and 54 per cent. in value; and of rails a product of 205,038, an increase of over 100 per cent. in the five years from 1855.

The ninth census—1870—gives the following:

Number of furnaces	574
Daily capacity, (tons,)	8,357
Annual product, (tons,)	2,052,881

Year 1871—

Pig metal, (tons,)	1,950,000
Value	\$75,000,000
Number of hands at furnaces, and preparing ore and fuel....	79,500

<i>Wrought Iron</i> —Rails.....	775,733	
Other than rails.....	710,000	
Total, (tons,).....	————	<u>1,485,733</u>

Year 1872—

Pig metal, (tons,).....	2,300,000
Value, (estimated,).....	\$90,000,000
Other iron, (tons,).....	<u>400,000</u>

The total number of net tons of rails made in the United States in 1872, as reported to the office of the American Iron and Steel Association by the makers, is 941,992, or 841,064 gross tons. This aggregate was produced in the following States, the production of each of which in 1872 is given in comparison with the production in 1871:

	1872.	1871.
Pennsylvania.....	419,529	335,604
Ohio.....	121,923	75,782
Illinois.....	106,916	91,173
New York.....	82,457	87,022
Wisconsin.....	37,284	28,774
Massachusetts.....	29,242	28,864
Maryland.....	26,472	44,941
Indiana.....	23,893	12,778
West Virginia.....	20,100	5,000
Missouri.....	15,500	8,200
Tennessee.....	14,620	9,667
Maine.....	14,058	13,383
Michigan.....	9,883	14,000
New Jersey.....	9,185	6,700
Georgia.....	6,930	7,480
Kentucky.....	4,000	6,000
Total.....	<u>941,992</u>	<u>775,733</u>

This aggregate of production includes only such rails as were made for the use of freight and passenger railways, and excludes 15,000 tons of street rails and all mining rails made during the year. More mining rails are made by bar mills than by rail mills, and they are generally classified as bar iron; hence the impossibility of ascertaining exactly the production of this class of rails in any year. Were the fact otherwise, however, we but follow the precedent of this office in excluding from our statistics of rails any estimate of the production of mining rails, as well as the ascertained production of street rails.

By this table it will be observed that in 1872 Pennsylvania made 419,529 tons, or $44\frac{1}{2}$ per cent. of the whole. Ohio comes second in the list, taking the place which Illinois held in 1871. Illinois is the third State in the list, and New York the fourth. In the production of steel rails the relative position of these four great iron-producing States is almost the same—Pennsylvania producing 38,463 tons. Ohio 22,000 tons, Illinois 15,930 tons, and New York 17,677 tons. No other States made Bessemer rails in 1872. The largest production of both iron and steel rails by a single must be credited to the Cambria Iron Works at Johnstown, Pa., which made a total of 81,006 net tons. This magnificent result was accomplished during a year in which a large part of the works was destroyed by fire—a calamity which it is proper to state, however, was almost immediately overcome by the extraordinary energy and resources of the company.

The production of rails in 1871 in the United States was 775,733 net tons; in 1872 it was 941,992 tons. Increase, 166,259 tons, or $21\frac{1}{2}$ per cent. The importation of foreign rails in 1871 was 566,202 net tons; in 1872 it was 530,850. Decrease, 35,352 tons, or $6\frac{1}{2}$ per cent. The net gain of the American railmaker in 1872 over his foreign rival was therefore 261,611 net tons.

Of the total production of 941,992 net tons of rails in 1872, 94,070 tons were Bessemer steel rails. In 1871 there were produced 60,042 net tons of steel and steel-headed rails. Increase, 34,028 tons, or $56\frac{2}{3}$ per cent. Of the 530,850 net tons of rails imported in 1872, 149,786 tons were steel rails. In 1873 it is estimated that there were imported 83,887 net tons of steel rails. Increase, 65,889 tons, or $78\frac{1}{2}$ per cent.

It will be seen that, while the importation of rails of all kinds was 35,352 net tons less in 1872 than in 1871, the importation of steel rails increased 65,889 tons. The reduction in the importation of all iron rails was, therefore, 101,241 tons.

The total consumption of iron and steel rails in 1871 was 1,341,935 net tons; in 1872 it was 1,472,842 tons. Increase, 130,907 tons. This increased consumption was more than equal by the increased production of American mills, which was 166,259 tons, as above stated.

The importation in 1872 of old rails for re-manufacture is carefully estimated at 170,000 gross tons. The customs regulations do not separate old rails from scrap iron; hence the necessity of estimating the quantity of each imported. The total importation of old scrap iron in 1872 was 248,444 gross tons, valued at \$7,617,463, gold, of which Great Britain sent 108,181 tons, valued at \$3,203,746. In 1871 Great Britain sent us 139,812 tons, valued at \$3,255,849.

During the year ended December 31, 1872, the aggregate value of the imports of iron and steel manufactures thereof, as officially reported by

Hon. Edward Young, Chief of the Bureau of Statistics. Treasury Department, was \$60,575,514, gold, of which \$22,705,025 represents the value of new iron and steel railroad bars—\$14,498,012 of iron, and \$8,207,013 of steel.

During the ten months ended October 31, 1871, the export from the United States of American railroad bars and rails was 330 net tons; during the same period of 1872 the export was 746 tons. Increase, 126 per cent. These figures of our export trade are comparatively unimportant, but they show progress in the right direction.

No reliable estimate of pig metal can be given for 1873, as full returns for this year are not available. The value of this review of the iron production of the United States will be appreciated when it is remembered that Pennsylvania's production, in this department as before stated, (*vide ante*, page 201,) is about equal to that of all the other thirty six states.

To show the esteem in which American heavy manufactures are held by foreign nations the subjoined extract will no doubt be interesting.

"At a semi-annual meeting of the Grand Trunk railway company in London, May 1, 1873, the president said, that company contracted for 300 new engines in the United States as substitutes for their old broad gauge stock, and added: The Americans make them now much cheaper than we can buy them here, and there have been many mechanical improvements in their mode of constructing engines. I do not hesitate to say that 300 new engines of the present type, made by the best manufacturers in America, and coal burning, are worth 450 of our old engines, wood burning."

PETROLEUM.

The existence of petroleum in this country must have been known at an early period of its history, but it is not until the year 1750 that we have any authentic records of its use, and we then hear that the Seneca Indians, now located on what is called Oil creek, possessed a knowledge of its medicinal qualities, and also used it in their religious ceremonials. No further or special notice seems to have been taken of the article until early in the present century, when settlers in the vicinity applied the oil to lubricating purposes, without, however, being aware of its value as an illuminator. The honor of this discovery is claimed by Professor Silliman, who was the first to determine its peculiar properties and intrinsic worth as a light giver. The publicity which the subject thus gained led to the formation of a company for the purpose of collecting the oil by trenching the land, but the small quantity obtained rendered the undertaking profitless, while the tediousness of the process no doubt gave birth to the idea that better results would be obtained by boring. Without much delay a well was sunk, and the correctness of the supposition, practically demonstrated at Titusville, in August, 1859, when oil was first struck at the depth of 69½ feet, and yielding some 25 barrels a day. Other wells quickly followed, and in June, 1860, the daily production averaged 200 barrels, increasing at the close of 1861 to 6,000 or 7,000 barrels per diem. From this time forward the trade rapidly developed with a corresponding extension of the producing districts. Large cities rose on spots but lately resounding with the woodman's axe, and were as quickly populated by thousands whose whole energy and capital were lent to this new branch of industry. Fresh wealth was added to our Commonwealth, an impetus given to commercial enterprise, and an article produced which is known and used all over the civilized world.

The territory which has thus yielded so much for the use of mankind, is mainly situated in Butler, Clarion and Venango counties, Pennsylvania. There is also some little oil produced in Western Virginia, at Parkersburg, and in that part of Ohio adjacent thereto. The following is about the order and time which each district was opened up.

1860-63. 1st. District on Oil creek, Dalzell, M'Clintock and Columbia farms.

1865. 2d. Pithole and Pleasantville districts, about twelve miles south of Titusville.

1868-69. 3d. The Fegundus district, near Tidioute.

1871. 4th. Parkers Landing, on the Allegheny river, about one hundred miles above Pittsburg.

1873. 5th. The Modoc and Fairview districts, about twelve miles back of Parkers Landing.

In these districts it is estimated there are now about 4,000 productive wells in existence, with an average daily production of about eight and one-half barrels crude oil, the largest yielding about 1,200 barrels. The subjoined table gives the average daily production of crude petroleum in the Pennsylvania oil region, for each month since September 1867. Previous to that date, no reliable statistics can be obtained. An estimate has also been made of the total production since the discovery of petroleum, until the close of 1873.

TABLE showing the average daily production of crude petroleum in the Pennsylvania oil region for each month since September, 1867, until the close of 1873.

YEAR.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total product for the year.	Average daily product for the year.
1867														
1868	8,700	9,260	8,621	8,537	8,790	10,102	10,693	11,481	9,700	9,600	9,800	10,400	3,583,176	9,811
1869	10,192	9,967	9,891	11,067	10,153	11,834	11,697	12,157	12,645	13,071	13,317	12,844	4,210,720	11,528
1870	12,634	11,917	12,385	12,974	14,165	14,817	16,969	17,777	19,489	20,158	18,012	15,214	5,673,195	15,513
1871	15,477	14,391	13,457	13,308	13,987	14,806	17,261	18,161	17,648	16,063	16,651	16,703	5,715,900	15,660
1872	16,286	17,012	15,506	16,308	18,345	17,749	18,513	18,816	16,561	14,309	23,275	22,054	6,531,675	17,895
1873	20,407	21,725	21,462	21,414	25,044	26,450	27,893	30,198	31,809	30,403	34,792	34,848	7,878,629	27,200

Total estimated product from the discovery of petroleum, until Dec. 31, 1873, 53,455,229 barrels.

As will be seen from foregoing figures, the increased production of 1873, over that of previous years, has been most marked, and furnishes clear evidence of rapid development of the trade.

For the manufacture of the crude oil into the refined petroleum of commerce, and the separation of the other valuable products in its composition, numerous refineries have been established, but only during the past few years have any of them been situated in close proximity to the wells. Although such a situation would appear both natural and more desirable, the want of transportation facilities, which formerly existed, located this trade, for the most part, in Pittsburg, Philadelphia, New York and Cleveland. Previous to its distribution to the points named, the oil is collected into tanks by lines of pipes, (often miles in extent from the wells.) The tankage capacity in the oil districts is estimated at nearly 3,000,000 barrels, and is fed by pipes, total length of which exceeds 2,000 miles. For the most part, the tanks are built of iron, each holding from 5,000 to 30,000 barrels, while those of wood are much smaller, both in size and number, none being of a greater capacity than 500, or united, of 400,000 barrels. The amount of oil held in these tanks and in pipes, is calculated to have been nearly 1,377,000 barrels at the close of 1873.

For conveyance to the refinery the oil is discharged from the tanks into tank railroad cars, of which some 2,500 are in use. Each of a capacity of from 80 to 90 barrels, or 212,500 barrels in all. Tank boats are also employed when navigation is open, but railroad transit being so much more rapid they do not find so much favor as the cars, and their use is consequently limited. The capacity of refineries, at this date, is estimated at 40,000 barrels crude per day, divided as follows:

STATE OF PENNSYLVANIA.

	Per cent.		Barrels.
Philadelphia.....	16	or	6,400
Pittsburg.....	22	"	8,800
Oil regions.....	18	"	7,200
	<u>56</u>	or	<u>22,400</u>

STATE OF OHIO.

	Per cent.		Barrels.
Cleveland.....	25	or	<u>10,000</u>

STATE OF NEW YORK.

	Per cent.		Barrels.
New York.....	19	or	7,600
	<u>100</u>	or	<u>40,000</u>

Although it hardly lies within the province of this article to describe the *modus operandi*, it may not be uninteresting to the reader, or out of place to mention that the process of refining takes about seventy-one and a half per cent. of burning oil from the crude; the remainder, consisting of residuum and naphtha, which are generally sold to others who make the extraction of such substances as gasoline, paraffine, dyes, &c., their special business. As an illuminater refined petroleum is now the cheapest, safest and best in existence; protection of inferior oils has restricted its use in some countries, but in open competition, at even a material advance over late prices, it cannot be beaten. Each year sees its consumption increased and new fields opened for its sale, while its low price places it within the reach of the poorest.

The year is not sufficiently advanced to permit of a full exhibit of the trade, but the subjoined synopsis of production and stocks for 1872, will, in a manner, illustrate its extent.

General summary of production and stocks for 1872, and showing the amount of oil apparently available for consumption in the world on the 1st January, 1873:

	Barrels.
Daily average production for 1872.....	20, 271
Total production of Pennsylvania oil region, 1872.....	6, 539, 000
Do.....do.....West Virginia, Kentucky and Ohio, 1872,	325, 000
Do.....do.....Canada	530, 000
	<hr/>
Total production crude, 1872	7, 394, 000
	<hr/>
Total stock in United States, January 1, 1873, of crude or its equivalent.....	1, 841, 000
Total stock in Canada, January 1, 1873.....	475, 000
	<hr/>
Total stock in America, January 1, 1873.....	2, 316, 000
Total stock afloat for and in all foreign ports, January 1, 1873,	1, 553, 000
Grand total stock in the world of crude or equivalent, January 1, 1873.....	3, 869, 000
	<hr/>

As a distributing centre Philadelphia possesses peculiar advantages, her large and capacious warehouses affording storage room for over one hundred thousand barrels of petroleum. With one exception, named below, these are located on the banks of the river Schuylkill, and, moored at their wharves vessels of the largest tonnage can load in safety and lie afloat at all times:

PETROLEUM.

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	Barrels.
Atlantic petroleum storage company.....	50,000
Empire stores	25,000
Greenwich Point	20,000
Gibson's Point.....	7,500
	<hr/>
	102,000
	<hr/>

As soon as the practical value of petroleum became more widely known, small shipments, both of refined and crude, were made to Europe, with a view to their introduction. Although slow to be appreciated, their ultimate success was none the less sure, and on the 19th of October, 1861, the "Elizabeth Watts" cleared for Liverpool from Philadelphia with 1,329 barrels crude oil, the first cargo which ever left the United States. From these small beginnings the export trade has assumed its present enormous dimensions; and, however incredible it may appear, the small cargo referred to has induced such a demand that the shipments of the following twelve years aggregate some 25,000,000 barrels of petroleum, or its products. During the past twelve months the amount of oil shipped from the States has been unprecedentedly large, showing an increase of nearly 60 per cent. on the figures for 1872. From its situation to the producing and refining districts, the exports from Philadelphia are rapidly increasing, about 2,000,000 barrels having left the port during the year 1873, against 1,300,000 in 1872. The subjoined statement will give more accurate figures, and at the same time furnishes the reader with a fair idea of the magnitude and importance of the trade.

With the exception of the year 1872, when an arbitrary attempt was made by refiners and producers to control the market, it will seem that the increase has been at the rate of 1,000,000 barrels in two years. The apparent decline in the year referred to was quite abnormal, and the average increase was more than restored by the proportionately larger exports for 1873.

EXPORTS.

Exports from United States in 1866, (41 gals. to bbl.,)	1,643,618	barrels.
Do.....do.....1867.....do.....	1,635,415	"
Do.....do.....1868.....do.....	2,407,254	"
Do.....do.....1869.....do.....	2,499,056	"
Do.....do.....1870.....do.....	3,439,325	"
Do.....do.....1871.....do.....	3,817,432	"
Do.....do.....1872.....do.....	3,720,855	"
Do.....do.....1873.....do.....	5,742,602	"

Exports from Philadelphia.....	1866, (41 gals. to bbl.,)	686,000 barrels.
Do.....do.....	1867.....do.....	684,080 “
Do.....do.....	1868.....do.....	949,297 “
Do.....do.....	1869.....do.....	760,009 “
Do.....do.....	1870.....do.....	1,100,851 “
Do.....do.....	1871.....do.....	1,238,061 “
Do.....do.....	1872.....do.....	1,314,439 “
Do.....do.....	1873.....do.....	1,915,429 “

THE OIL TRADE OF PITTSBURG.

[From the *Pittsburg Commercial*.]

The yearly receipts of crude oil at Pittsburg, from 1869 to 1873, inclusive, and the yearly exports of refined oil from 1865 to 1873, inclusive.

CRUDE OIL RECEIPTS.

The following are the receipts of crude oil by river and rail for the past fifteen years:

	Barrels.		Barrels.
1859.....	7,063	1868.....	1,061,227
1860.....	17,161	1869.....	1,028,902
1861.....	94,102	1870.....	1,050,810
1862.....	171,774	1871.....	1,146,493
1863.....	175,181	1872.....	1,186,501
1864.....	208,744	1873.....	2,035,182
1865.....	630,246		
1866.....	1,253,326	Total.....	10,794,206
1867.....	727,494		

EXPORTS OF REFINED OIL.

For the past nine years:

	Barrels.		Barrels.
1865.....	298,111	1871.....	733,943
1866.....	424,848	1872.....	743,610
1867.....	498,226	1873.....	869,246
1868.....	724,991		
1869.....	596,475	Total.....	5,700,608
1870.....	811,158		

The following statements are given as set forth in the “Fifth Annual Petroleum Report of 1872.” [Report from same source for 1873, not available for publication in this report.]

Total monthly shipments from the Pennsylvania oil district, of crude or its equivalent in 1872.

PETROLEUM.

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January.....	461,965
February.....	392,565
March.....	264,792
April.....	398,003
May.....	487,654
June.....	528,011
July.....	559,499
August.....	583,917
September.....	510,108
October.....	571,952
November.....	490,210
December.....	463,689
Total barrels.....	<u>5,712,365</u>

DISTRIBUTION OF SHIPMENTS OF 1872.

To New York.....	1,957,954
To Cleveland.....	1,174,513
To Boston.....	197,130
To Philadelphia.....	742,455
To Pittsburg.....	1,177,424
To other points.....	462,889
Total barrels.....	<u>5,712,365</u>

The shipments has nearly doubled since 1866.

The following production report for October, 1872, is given as a specimen of such reports, and may not be uninteresting to the general reader :

[*Per steamers Baltic and America.*]

CRUDE PETROLEUM—PRODUCTION, STOCKS, &C.

The annexed information is chiefly compiled from the published statements of the Titusville *Herald*, *Courier*, and Producers' Association, and the delay in presenting the reports for September, has been caused principally by the unsettled condition of affairs in the oil regions during the latter part of the month, consequent upon the sudden, and to the general public, unexpected stoppage of production, accomplished as it was, by a harmonious and united action of the producers of the various districts.

PRODUCTION.

It is impossible to give an accurate estimate as to what the average daily production for September would have been, had no stoppage occurred, but there is very little doubt that up to that period, it was fully equal, if not in excess, of the preceding month. The producers have demonstrated that

they can control, and if necessary, entirely stop production, and it may be that the trade hereafter will be conducted on a more legitimate basis, and quite probably an association be formed of crude oil men, something like the present refiners' combination. It becomes a subject of great interest, as to what result the temporary interruption of production may ultimately have upon the productive capacity of the numerous wells, in some sections (the older portion of the territory) it is claimed by some, that the wells will be seriously injured by having allowed the water to accumulate therein during the stoppage, and in other quarters (the newer territory) it is asserted that, at the first resumption, the yield may exceed the local production at the date operations were suspended. For September the *Titusville Herald* gives the average daily production as 16,531 barrels; *Courier*, at 15,863 barrels, and Producers' Association, at 16,681; an average of 16,358 barrels, being a reduction of 2,091 barrels from the average of the three authorities for August. The number of wells drilling, October first, is given by the *Herald*, at 361; *Courier*, 264, and Producers' Association, at 201.

TABLE OF PRODUCTION.

MONTHS.	1872.	1871.	1870.	1869.	1868.	1867.
January	17,826	15,477	12,634	10,192	9,709	.....
February.....	18,033	14,391	11,917	9,767	9,200	.....
March	16,527	13,531	12,384	9,791	8,621	.....
April	17,329	13,308	12,974	11,067	8,537	.....
May	18,345	13,987	14,165	10,153	9,790	.....
June.....	17,449	14,806	14,817	11,334	10,102	.....
July	18,513	17,261	15,969	11,697	10,698	.....
August	18,816	18,161	17,777	12,157	11,981	.....
September.....	16,531	17,048	19,489	12,645	11,033	9,700
October	*14,309	17,092	20,129	13,071	10,133	9,600
November.....	*23,275	17,672	18,012	13,317	10,275	9,800
December.....	*23,500	17,724	15,214	12,844	9,737	10,400

* Estimated.

NUMBER OF WELLS DRILLING AT VARIOUS DATES.

MONTHS.	1872.	1871.	1870.	1869.	1868.	1867.
January... 1st.....	469	167	364	378	182	.....
February... do.....	420	173	388	341	150	.....
March..... do.....	405	159	395	334	160	.....
April..... do.....	301	231	433	292	193	.....
May..... do.....	334	247	412	312	217	.....
June..... do.....	378	306	463	345	257	.....
July..... do.....	390	386	349	305	299	.....
August.... do.....	349	353	319	310	327	.....
September do.....	347	364	306	315	331	.....
October.... do.....	361	426	305	331	370	.....
November do.....	359	481	206	360	435	232
December do.....	353	490	191	346	401	255

STOCKS.

The report of the Titusville *Herald* gives stock October 1st, at 914,423 barrels, and *Courier* at 877,739 barrels, the Producers' Association again omitting any report of total stocks. It will be recollected that the above statement of stocks was made up only a short while after the stoppage of production occurred. There are a number of estimates by well informed parties as to what reduction the next statement of stocks will indicate; they all, however, unite in looking for an important change in the figures.

STOCK OF CRUDE IN THE PRODUCING REGIONS.

MONTHS.	1872.	1871.	1870.	1869.	1868.
January...1st.....	623,348	507,751	340,000	264,000	534,000
February...do.....	692,282	587,021	342,000	274,000	541,000
March....do.....	866,548	642,944	351,000	282,000	552,000
April.....do.....	1,040,898	673,810	385,000	329,000	559,000
May.....do.....	1,144,240	685,616	329,000	365,000	421,000
June.....do.....	1,203,649	554,424	341,568	365,000	290,000
July.....do.....	990,229	541,676	321,840	309,090	268,000
August....do.....	979,166	530,933	356,908	307,000	267,000
September do.....	951,410	541,875	419,477	332,000	295,000
October....do.....	914,423	495,666	473,896	292,030	263,000
November do.....	759,630	503,574	576,014	275,000	266,000
December do.....	923,947	532,974	554,626	337,000	253,000

STATISTICS OF SLATE QUARRIES,

As far as could be ascertained, in the counties of York and Lehigh, for the year ending December 31, 1871.

PEACH BOTTOM STATE QUARRIES—YORK COUNTY.

Prior to the war of 1812, a quarry was opened in York county, and worked on a small scale, only a few inexperienced hands being employed—there being no demand for slate except in the surrounding country, and an occasional team load to tide-water, distant some 15 or 18 miles.

At the breaking out of the war operations were stopped, and were not resumed for twenty years, when another effort was made to open the quarries, but only on a small scale.

New openings were made at different places through the neighborhood, some of which were soon abandoned, while others were worked successfully; the great drawback appeared to be the want of experts and practical quarrymen. The community appeared to take but little interest in the business. With the construction of the tide-water canal an outlet was afforded for

shipment of slate up and down the Susquehanna river, and about the year 1840 a few Welshmen arrived, who were practical quarrymen and slate manufacturers; they were soon followed by others, and from that time to the present the slate made here is good and marketable, the metal being strong and tough and not liable to fade or change color.

As to the production of the Peach Bottom Slate Quarries from the time they were first opened, there are no statistics to be found; as a general rule the quarries were carried on by men of limited means, and in all probability no records were kept of production.

The following is the report of the Peach Bottom Quarries for the year ending December 31, 1871:

No. of men employed.....	Wages per diem or per month..	Hours of labor..	No. of horses ...	Engines? What horse-power?..	SLATE.		Value.....	Gross receipts...	Net receipts.....
					Quant. quarried	Price per ton			
100			10	7 stationary	*5,000 t's.,	\$24 00	*\$120,000		

* The quantity and valuation is only estimated, and includes the Maryland quarry.

Fifteen quarries are in operation at the present time, viz:

In Lancaster county, east side of Susquehanna river.....	2
In York county, west.....do.....do.....do.....	5
In Harford co., Maryland, do.....do.....do.....do.....	8
Total, Peach Bottom Quarries.....	15

Some of these were opened but a few years ago, but as yet very little has been done—though at most of them the prospect is good, and promises to be remunerative. Five thousand tons slate would be a fair yearly average for the past twenty years, worth about \$24 per ton, produced by about one hundred hands employed at different quarries; there are at the present time seven stationary steam engines, and ten horses used for pumping and hoisting purposes; the first steam engine was put in about the year 1852.

SLATINGTON SLATE QUARRIES—LEHIGH COUNTY.

In this slate quarrying, mining and manufacturing district are located the quarries and works of the American, the Lehigh, the Girard, the Riverside, the Franklin, H. Williams and other companies.

The slate of this region, being of various grades of hardness, peculiarly adapted for the various purposes for which it is used. The larger veins, while in formation, are of the best roofing slate material in the country, and the smaller veins, of a softer nature, are not so well adapted for roofing, and are used for mantels, black-boards, school slate, etc. The

paving slate manufactured from the large veins found here, is of a superior order, both in quality and appearance.

This great quarrying and mining district is highly favored with railroad and water transportation facilities, nearly all the large companies having branches laid on their premises from the main road. Slatington is the terminus of the Berks county railroad, which is an extension of the Wilmington and Reading railroad, thus enabling operators here to ship directly south.

OFFICE OF THE LEHIGH SLATE CO.,
Slatington, Pa., Dec. 9, 1872. }

Commissioner of Statistics, Harrisburg, Pa.:

DEAR SIR:—Herewith please find enclosed the report of slate manufactured in Lehigh county for the year ending December 31, 1871, as near as I can estimate it.

In Northampton county they produce more than we do in Lehigh; that is taking Chapman and Bangor quarries in. Should you have no report from there you can safely make a higher estimate than we give you for Lehigh county.

Very respectfully yours,

R. M'DOWELL,

PER SCHNACKENBERG.

No. of men employed.....	Wages per diem or per month..	Hours of labor..	No. of horses ...	Engines.—What horse power ...	SLATE.		Value.....	Gross receipts...	Net receipts.....
					Quant. quarried.....	Price per sqr.			
400	\$2 00	10	30	9-100	*62,000 sqs.	\$5 00	\$310,000	.....	10 per c.

* One hundred feet to the square.

In the above estimate of men employed there are manufactured 8,000 cases of school slates, valued at \$56,000, and for mantels and black-boards the value is \$20,000.

LANCASTER ZINC MINES.

VALUABLE MINERAL DEPOSITS.

The Lancaster County mining company's zinc mines are located in West Hempfield township, about a mile east of Rohrerstown, and within one hundred and fifty yards of the track of the Columbia Branch of the Pennsylvania railroad. These mines are not a new discovery, but have been known for many years. About a quarter of a century ago, while a farmer

was plowing in a field which overlay a portion of the veins, he turned up a small lump of a heavy substance which sparkled with glittering particles. Carrying it to an adjoining blacksmith shop he smelted the lump, and these particles formed into a molten mass resembling lead, but which, upon examination by a minerologist, proved to be a superior quality of zinc. A few years after this discovery a company was formed between the owners of the land and a party of gentlemen from New York, and mining operations were begun. The mineral proved to be of a very valuable character, and the mines became a subject of litigation, and for twenty-three years neither party could work them. After the death, however, of one of the New York party, the difficulties were adjusted and the mines reverted to the original possessors, who formed another company known as the "Lancaster County mining company," the stock being principally held by Lancasterians. It is proposed to develop and work the mines thoroughly. New veins have been discovered, and from present indications, the mineral is practically inexhaustible. It is the opinion of practical miners that the ores taken from the Hempfield mines are the richest in the world. The veins run east and west, the main one of which has been traced over nine hundred yards, and the length of the others is unknown. They vary in width from six feet to seventy feet, and will be easily worked when the proper machinery is put in place. Specimens of block tin and rolled zinc, smelted from these ores at Bethlehem, Pa., may be seen in the office at the mines. The valuable character of the mineral may be appreciated from the fact that when these mines were first opened, over twenty years ago, the smelted metal was worth but two and one-half cents per pound, whereas it now commands fifteen cents per pound and is in every increasing demand. The crude ore as taken from the mines is worth from \$35 to \$40 per ton. When the mines and smelting works are in full operation it is estimated that about two hundred employees will be required. Most of these will be practical miners and will be secured at Bethlehem and other places, thus adding slightly to our population and largely to our wealth.

GAP NICKEL MINES.

This deposit is the only one now being worked in this country, and is believed to be the largest yet discovered in the world. The mine is in Lancaster county, about three miles south of the Gap station, on the Pennsylvania railroad. It is on the high land separating Chester and Pequea valleys, a region rich in minerals; for besides the copper found in connection with the nickel, large deposits of iron and limestone are found a short distance south. The existence of copper here was known many years ago,

and copper was taken out seventy years ago, but the mining is never prosecuted with much vigor, nor with much profit.

About the year 1856, the material mixed with the copper was discovered to be nickel, and at the depth to which the mine now reaches it predominates. The depth of the mine is 240 feet, and its length several hundred. The ore is very hard, and the mining is carried on altogether with blasting.

There are a few Cornish miners to take the lead, and the others are generally Americans. A Cornish pumping engine, of seventy-five horse power, draws half a barrel of water at every stroke from the mine, another draws the ore to the surface. The ore in appearance, is iron gray, very heavy, and in some pieces the bright copper ore is very prominent. The amount of ore taken from the mine varies from 400 to 500 tons per month. The mining and manipulation of this amount, of course, requires a number of workmen, and there are 175 hands employed here and at the furnaces. The ore is hauled in wagons about half a mile to the furnaces, situated on very high ground, overlooking the beautiful Pequea Valley. The situation was chosen because the wind would carry away the disagreeable smoke and gas, and because of the stores of limestone and flint in the neighborhood.

The ore is first thrown between the jaws of a ponderous iron breaker, by which it is reduced to small fragments weighing about half a pound each. Thence carts convey it to the kilns, which are constructed very much as the old-fashioned lime kilns, except that these have a very tall smoke stack, to carry the smoke and gas out of the way and increase the draft. A kiln, holding eighty or ninety tons, is filled with ore and kindled with a little wood. It burns for about six weeks, its own gas supplying the fuel for burning out the impurities. This first step towards purification is followed by a process almost precisely similar to that to which iron is subjected. There are three large furnaces, and into these the ore is now put, mixed with powdered flint and limestone (the former predominating) and coke.

About three draws are made in twenty-four hours, for the work does not stop night or day, two sets of hands being employed. The product of the furnaces is passed through iron rollers and crushed to powder, in order that it may be more easily transported to Camden, New Jersey, where the final process of separating the nickel and copper, and preparing each for market is effected. No waste is allowed. The ore dust, large quantities of which are made in drilling and blasting, is mixed with flux and clay, baked in square bricks, and reduced in the furnaces just as is the rest of the ore. The pure nickel commands a high price, varying, of course, according to the demand, but generally over \$2 00 per pound, and its uses are rapidly being extended. Not only does this mine supply all of the material for our nickel

coins, but is being extensively used in plating iron and other metals and in various compounds.

The whole property is owned by a Philadelphia gentleman, and he has by his energy and capital opened up a new branch of industry for the American artisan, and has taken us along another step towards supplying ourselves with the useful in the arts and manufactures. But not upon the proprietor alone are the benefits of this enterprise falling. The whole surrounding country is benefitted. The hands employed from a valuable class of citizens. Land in the vicinity of the mines has risen to five times its value twenty years ago.

Thus it is that Pennsylvania, through her valuable mineral deposits, is increasing her wealth by mining and manufacturing interests, even in the midst of her most valuable agricultural territory.

PORTS OF ENTRY OF PENNSYLVANIA.

General exhibit of Trade, Commerce and Manufactures of the cities of Philadelphia, Pittsburg and Erie.

COMMERCE OF PHILADELPHIA.

STATEMENT of import entries of Commodities brought from foreign countries, in American and foreign vessels, into the custom district of Philadelphia, during the year 1873 :

FOREIGN IMPORTS.

Summary statement of articles imported direct from foreign countries into the port of Philadelphia, during the year 1873 :

ARTICLES.	QUANTITY.	VALUE.
<i>Free of duty:—</i>		
Animals, living.....		\$3,797
Articles of the United States.....		608,306
Barks—medicinal.....		60,768
cork.....		85,604
Books.....		5,815
Chalk.....		10,009
Chemicals.....		444,732
Chloride of lime, lbs.....	7,770,123	213,380
Cocoa, crude, lbs.....	3,459	572
Cochineal, lbs.....	126,290	78,796
Coffee, lbs.....	3,610,875	609,181
Coir-yarn.....		5,851
Dyewoods, cwt.....	63,541	40,867
Fish.....		768
Fruits.....		16,718
Gold coin.....		1,000

FOREIGN IMPORTS—CONTINUED.

ARTICLES.	QUANTITY.	VALUE.
Graphite.....		\$6, 146
Gums, lbs.....	160, 523	19, 262
Gypsum, tons.....	12, 505	13, 703
Hair, manufactured.....		6, 983
Hides.....		311, 051
Horns.....		1, 559
Household effects.....		934
Indigo, lbs.....	31, 576	28, 117
Kryolite.....		28, 118
Maccaroni.....		3, 145
Madder, lbs.....	35, 482	2, 858
Metal.....		4, 221
Oils.....		12, 833
Painting.....		10, 565
Plumbago.....		125, 333
Pumice stone.....		2, 108
Paper material.....		256, 879
Ratans.....		3, 340
Seeds.....		8, 812
Silk, raw, lbs.....	588	5, 159
Scientific apparatus.....		1, 916
Shells.....		23, 324
Soap stock.....		1, 787
Soda, nitrate of, lbs.....	8, 131, 906	196, 693
Sulphur, tons.....	7, 903	234, 544
Tea, lbs.....	575, 897	184, 865
Tin in bars, cwt.....	63	2, 014
Whetstones.....		1, 429
Wood, unmanufactured.....		15, 119
Miscellaneous.....		16, 407
Total free.....		3, 714, 784
<i>Subject to duty:—</i>		
Blacking.....		1, 745
Beer and ale, gallons.....	23, 760	24, 570
Books.....		28, 448
Brass manufactures.....		18, 949
Breadstuffs.....		14, 289
Buttons.....		4, 870
Cement.....		14, 159
Chalk.....		2, 531
Chemicals.....		460, 471
Clay, tons.....	6, 107	71, 814
Clay pipes.....		5, 199
Copper and manufactures of.....		112, 207
Cotton manufactures.....		259, 037
Earthen and stoneware.....		507, 167
Fancy goods.....		114, 687
Fish.....		8, 180
Flax manufactures.....		319, 183
Fruits.....		560, 752
Furs.....		23, 357
Glass and glassware.....		156, 733
Grape-sugar, lbs.....	121, 375	4, 931
Hair, human and other.....		10, 602
Hemp, raw, tons.....	35	7, 984
Hemp manufactures.....		9, 508
Hides.....		1, 011
Honey, lbs.....	908	639
Hops, lbs.....	114, 826	41, 671
India-rubber manufactures.....		12, 423
Ink.....		17, 750
Iron—Pig, lbs.....	63, 881, 314	1, 319, 685
Bar, lbs.....	10, 576, 060	354, 204
Band and hoop, lbs.....	117, 264	3, 438
Sheet, lbs.....	37, 711	2, 101

MINERAL STATISTICS.

FOREIGN IMPORTS—CONTINUED.

ARTICLES.	QUANTITY.	VALUE.
Iron—Old, tons.....	19,751	709,947
Hardware.....		18,828
Anchors and chains, lbs.....	959,646	56,437
Machinery.....		98,288
Muskets and rifles.....		71,890
Steel ingots.....		190,522
Steel railroad bars, lbs.....	6,927,973	230,013
Cutlery.....		34,030
Files.....		69,730
Saws and tools.....		4,153
Other manufactures.....		814,386
Jewelry.....		15,466
Jute manufactures.....		14,411
Lead, lbs.....	8,398,964	406,365
Leather and manufactures.....		78,467
Marble and stone.....		116,132
Metals.....		60,665
Musical instruments.....		18,601
Oil-cloth.....		2,448
Oils—Olive, gallons.....	32,438	31,317
Other.....		9,973
Opium, lbs.....	43,937	253,668
Paintings.....		75,104
Paints.....		28,773
Paper manufactures.....		47,248
Perfumery.....		17,254
Plaster, calcined.....		1,927
Precious stones.....		49,349
Provisions.....		110,928
Roofing felt.....		1,187
Salt, lbs.....	100,181,472	267,719
Saltpetre, lbs.....	13,464	869
Seeds.....		20,064
Silk manufactures.....		75,700
Soap.....		11,052
Soda—Bicarbonate, lbs.....	793,668	26,640
Carbonate, lbs.....	56,971,997	1,457,445
Caustic, lbs.....	5,698,041	251,797
Spices, lbs.....	173,913	55,372
Sugar, brown, lbs.....	134,159,156	6,430,212
Molasses, gallons.....	15,230,478	3,280,273
Melado, lbs.....	130,509	3,697
Tin in plates, cwt.....	179,105	1,560,159
Tin manufactures.....		11,699
Tobacco, leaf, lbs.....	24,583	11,294
Tobacco, segars, lbs.....	29,388	102,141
Watches.....		29,496
Spirits, gallons.....	113,483	112,161
Wine, gallons.....	279,577	125,604
Vinegar, gallons.....	4,108	922
Wood manufactures.....		55,326
Wool, manufactured, lbs.....	639,866	171,300
Wool manufactures.....		914,195
Zinc in sheets, lbs.....	35,925	2,753
Miscellaneous.....		5,390
Total.....		25,820,896

FOREIGN IMPORTS.

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RECAPITULATION.

Statement of imports from the following foreign countries into the port of Philadelphia, during the year 1873:

COUNTRIES.	IN AMERICAN VESSELS.	IN FOREIGN VESSELS.	TOTALS.
Argentine Republic.....	\$1,149		\$1,149
Belgium.....	35,013	\$974,498	1,009,511
Brazil.....	17,826	425,782	443,608
Chili.....		24,360	24,360
China.....		183,979	183,979
Greenland.....		28,118	28,118
France.....	66,926	98,828	165,753
French West Indies.....	27,236	82,152	109,388
French Possessions in Africa.....		28,650	28,650
Germany.....	66,503	855,435	921,938
England.....	3,040,325	8,009,469	11,049,794
Scotland.....		35,240	35,240
Ireland.....	154	79,964	80,118
Dominion of Canada.....	28,678	37,100	65,778
British West Indies.....	42,388	72,916	115,804
British East Indies.....		132,759	132,759
Hayti.....	11,131		11,131
Italy.....	385,465	669,768	1,055,233
Netherlands.....	22,796	317,615	340,411
Dutch West Indies.....		476	476
Dutch East Indies.....	122,229	61,672	183,901
Peru.....		174,132	174,132
Portugal.....	4,221	89,567	93,788
Spain.....	147,684	64,069	211,693
Cuba.....	7,143,801	1,790,532	8,934,343
Porto Rico.....	149,470	178,419	327,889
Sweden.....		462,103	462,103
Turkey.....		48,209	48,209
U. S. of Colombia.....	695		695
Venezuela.....	82,995	498,450	581,445
Total.....	11,396,694	15,424,202	26,820,899
Imported into the port of New York and transported thence, without ap- praisement, to the port of Philadel- phia, under the provisions of the act of July 14, 1870, during the year 1873,.....			2,366,029
Total.....			29,186,925
Imported during year 1872, direct.....	\$9,539,096	\$13,650,635	\$23,219,731
Do.....do.....do..... via. N. Y.,.....			3,084,320
Total.....			26,304,051
Imported during year 1871, direct.....	\$10,004,765	\$9,559,793	\$19,564,558
Do.....do.....do..... via. N. Y.,.....			1,255,816
Total.....			20,820,374
Imported during year 1870, direct.....	\$9,423,966	\$5,528,405	\$14,952,371

MINERAL STATISTICS.

COMPARATIVE STATEMENT OF IMPORTS.

ARTICLES, &C.	1870.	1871.	1872.
<i>Molasses</i> :—			
Hogsheads	92,883	93,397	117,529
<i>Coffee</i> :—			
Bags	19,551	38,166	47,764
<i>Sugar</i> :—			
Boxes	30,800	36,433	34,448
Hogsheads, barrels and tierces	64,791	63,253	54,201
Bags	34,926	54,720	26,932
NAVAL STORES.— <i>Rosin</i> :—			
Barrels	37,470	36,000	39,650
<i>Tar</i> :—			
Barrels	2,840	2,100	2,600
<i>Pitch</i> :—			
Barrels	1,370	1,580	1,840
<i>Spirits Turpentine</i> :—			
Barrels	8,110	9,160	9,850
CATTLE.			
Beeves	117,903	125,333	134,850
Cows	8,835	11,150	12,302
Hogs	189,500	199,610	210,276
Sheep	682,900	790,200	749,500
GRAIN, &C.	<i>cwt.</i>	<i>cwt.</i>	<i>cwt.</i>
Wheat	9,973,724	15,612,202	16,760,827
Barley	1,818,960	3,518,647	5,629,234
Oats	3,087,807	3,066,217	3,274,873
Peas	282,301	299,234	498,558
Beans	435,906	1,155,743	783,874
Indian corn	6,420,206	6,820,010	8,039,443
Flour	1,378,247	1,167,143	1,962,443

EXPORTS.

SUMMARY STATEMENT of *Commodities, the growth, produce and manufacture of the United States, exported to foreign countries from the port of Philadelphia, during the year 1873 :*

ARTICLES.	QUANTITY.	VALUE.
Agricultural implements		\$1,617
Animals		4,405
Bark for tanning		59,866
Beer and ale, gallons	\$17,280	6,191
Bones and bone dust, cwt.	279	951
Bone black, lbs.	142,362	6,271
Books		3,403
Bread and breadstuffs—Bread and biscuit, lbs.	1,128,533	51,915
Indian corn, bushels	2,002,368	1,279,344
Indian corn meal, barrels	30,185	106,975
Oats, bushels	25,997	15,163
Rye, bushels	5,000	4,250
Rye flour, barrels	643	3,242
Wheat, bushels	1,938,300	8,050,933
Wheat flour, barrels	142,386	1,057,966
Other breadstuffs		279
Brooms		2,080
Candles, lbs.	124,571	15,309
Carriages		4,460
Cars, railroad		22,400
Coal, tons	31,910	153,614
Cordage, lbs.	12,137	1,946
Cotton, bales 16,107, lbs.	7,308,067	1,257,165
Cotton manufactures		6,986
Drugs and chemicals		52,359

FOREIGN EXPORTS.

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EXPORTS—CONTINUED.

ARTICLES.	QUANTITY.	VALUE.
Fruits.....		4,555
Furs.....		20,826
Gas fixtures.....		12,318
Glassware.....		3,931
Gold coin.....		28,368
Grease, lbs.....	169,484	8,551
Gypsum.....		1,119
Hair, manufactured.....		53,289
Hay, tons.....	20	800
Hides.....		95,312
Iron—Railroad bars, cwt.....	2,954	12,594
Castings.....		3,218
Car wheels.....		24,531
Engines.....		533,452
Boilers.....		6,831
Machinery.....		96,333
Nails, lbs.....	307,360	16,488
Other manufactures.....		229,136
Leather and manufactures.....		41,731
Matches.....		1,154
Naval stores—Rosin, barrels.....	14,535	55,623
Tar, barrels.....	1,441	5,639
Oilcake, lbs.....	20,112,407	391,180
Oils—Petroleum, crude, gallons.....	4,837,394	566,443
Petroleum, refined, gallons.....	80,166,187	14,967,786
Petroleum, lubricating, gallons.....	5,373	1,265
Naphtha and benzine, gallons.....	1,839,432	199,562
Residuum, barrels.....	7,410	32,003
Lard, gallons.....	1,634	1,239
Neatsfoot, gallons.....	5,414	4,844
Other.....		2,470
Paintings.....		14,397
Paper.....		2,346
Perfumery.....		9,105
Printing material.....		2,562
Provisions—Bacon and hams, lbs.....	6,067,337	500,662
Beef, lbs.....	651,765	57,046
Butter, lbs.....	46,244	9,299
Cheese, lbs.....	1,321,116	149,766
Fish.....		2,409
Lard, lbs.....	3,349,720	293,386
Meats.....		12,282
Oysters.....		673
Pork, lbs.....	1,216,348	93,532
Vegetables.....		16,685
Rags, pounds.....	91,037	6,083
Seeds.....		29,876
Sewing machines.....		11,388
Soap, lbs.....	37,280	2,510
Spirits, gallons.....	2,686	1,175
Spirits of turpentine, gallons.....	29,835	13,992
Starch, lbs.....	172,389	9,253
Molasses, gallons.....	1,643,606	319,441
Tallow, lbs.....	10,965,866	968,586
Tobacco—Leaf, lbs.....	9,885,960	1,314,652
Snuff, lbs.....	3,642	1,524
Manufactures.....		2,154
Vinegar, gallons.....	4,541	1,016
Wax, lbs.....	21,207	6,485
Wearing apparel.....		5,648
Wood—Boards, M.....	2,475	70,964
Cooperage.....		1,043,165
Other manufactures.....		17,446
Wool, raw, lbs.....	146,029	29,583
Miscellaneous.....		20,864
Total.....		29,633,186

PHILADELPHIA.

RECAPITULATION.

Statement of the value of exports to the following foreign countries :

COUNTRIES.	IN AMERICAN VESSELS.	IN FOREIGN VESSELS.	TOTALS.
Austria.....	\$107,044	\$68,092	\$175,136
Belgium.....	775,040	5,634,501	6,409,541
Brazil.....	235,893	259,492	495,385
Denmark.....	24,863	454,667	479,530
Danish West Indies.....		210	210
France.....	530,081	301,481	831,562
Germany.....	361,698	5,669,516	6,031,214
England.....	1,761,017	3,805,676	5,566,693
Scotland.....	30,876	103,342	134,218
Ireland.....	152,020	2,799,008	2,951,028
Gibraltar.....	110,284	349,305	459,589
Nova Scotia.....	186,836	81,399	268,235
British West Indies.....	824,727	185,120	1,009,847
British Guiana.....	14,120		14,120
Italy.....	287,852	220,905	508,757
Mexico.....	5,400		5,400
Netherlands.....	86,179	1,203,648	1,289,827
Dutch West Indies.....		32,756	32,756
Portugal.....		104,414	104,414
Russia.....	234,026	368,266	602,292
Sandwich Islands.....	3,600		3,600
Spain.....	77,006	58,734	135,740
Cuba.....	1,300,312	123,178	1,423,490
Porto Rico.....	77,996	61,719	139,515
Sweden and Norway.....		167,061	167,061
U. S. of Colombia.....	21,988		21,988
Venezuela.....	174,247	197,791	372,038
Total.....	7,382,905	22,250,281	29,633,186
Total exports of 1872.....	5,420,591	15,064,212	20,484,803
Do.....do.....1871.....	6,768,431	13,920,120	20,688,551
Do.....do.....1870.....	6,318,479	10,321,999	16,640,478

Statement of the exports of breadstuffs, (including bread, biscuits, Indian corn, Indian cornmeal, oats, rye, rye flour, wheat, wheat flour and other grains and provisions, including bacon, hams, beef, butter, cheese, fish, lard, oysters, pork and vegetables,) from the port of Philadelphia to foreign countries, during the year 1873 :

COUNTRIES.	BREAD- STUFFS.	PROVISIONS.
Belgium.....	\$689,028	\$550,184
Brazil.....	37,701	
Danish West Indies.....		210
France.....	47,299	
England.....	1,270,846	378,236
Scotland.....	29,314	
Ireland.....	2,409,573	
Nova Scotia.....	26,643	5,292
British West Indies.....	707,209	114,139
British Guiana.....	7,297	3,815
Italy.....	8	37
Dutch West Indies.....	19,049	3,376
Cuba.....	38,552	39,978
Porto Rico.....	62,943	24,110
Venezuela.....	213,384	18,455
Total.....	5,556,846	1,137,832
Exports during the year 1872.....	4,100,979	282,954
Do.....do.....1871.....	4,148,595	341,382

FOREIGN EXPORTS.

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Exports of petroleum from the port of Philadelphia to foreign countries, during the year 1873 :

COUNTRIES.	REFINED.		CRUDE.		NAPHTHA AND BENZINE.	
	Gallons.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.
Austria.....	1,061,674	175,050				
Belgium.....	22,555,391	4,064,393	416,945	48,000	620,396	57,389
Denmark.....	2,453,163	478,014				
France.....	481,132	76,030	3,583,226	413,941	303,597	42,194
Germany.....	30,767,285	5,873,861	477,020	56,138	468,145	42,705
England.....	4,520,647	828,913			79,861	10,382
Ireland.....	2,521,315	467,713			322,128	42,814
Gibraltar.....	2,326,420	459,589				
Nova Scotia.....	6,688	1,735				
British West Indies,	87,087	20,386				
Italy.....	2,217,096	430,311				
Netherlands.....	6,885,907	1,289,827				
Dutch West Indies..	9,000	2,205				
Portugal.....	431,026	87,753				
Russia.....	2,468,852	492,651	42,754	7,964	45,305	4,078
Spain.....	750,763	133,135				
Cuba.....	13,347	3,089				
Porto Rico.....	23,940	6,065				
Sweden & Norway..	585,424	77,061	317,449	40,000		
Venezuela.....	30	7				
Total.....	80,166,187	14,967,786	4,837,394	566,443	1,839,432	199,562

Total exports of petroleum, benzine and naphtha :

	1873.		1872.		1871.	
	Gallons.	Dollars.	Gallons.	Dollars.	Gallons.	Dollars.
Refined.....	80,166,187	14,967,786	47,984,845	11,209,583	51,352,996	12,512,109
Crude.....	4,837,394	566,443	7,213,058	1,192,090	3,833,979	673,906
Naphtha and benzine..	1,839,432	199,562	1,158,165	168,106	714,615	71,880
Total.....	86,643,013	15,733,791	56,356,068	12,569,779	55,901,590	13,257,895

Exports of industrial products to foreign ports for ten months ending October 31, in the years named :

IRON AND MANUFACTURES OF	1872.	1871.
Pig.....	\$66,378	\$49,181
Bar.....	24,774	14,446
Boiler plate.....	5,041	3,312
Railroad bars and rails.....	52,707	23,605
Sheet, band and hoop.....	13,216	3,310
Castings, not specified.....	124,000	113,721
Car wheels.....	81,637	55,961
Locomotives.....	616,184	805,718
Stationary steam engines.....	78,915	98,503
Steam boilers.....	148,110	96,123
Stoves, and parts of.....	88,946	62,740
Machinery, not specified.....	2,436,637	1,445,053
Nails and spikes.....	259,657	205,146
All other iron articles.....	2,290,560	1,696,329
<i>Steel, and manufactures of</i>		
Ingots, bars, sheets and wire.....	1,920	5,034
Cutlery.....	26,075	73,073
Edge tools.....	560,908	431,842
Files and saws.....	13,113	11,365
Articles not specified.....	248,356	171,024
Leather.....	3,029,228	1,037,923
Morocco.....	202,417	47,051
Marble and stone manufactures.....	157,842	101,831
Paper and stationery.....	592,622	453,746
Perfumery.....	349,259	253,847
Printing presses and type.....	128,471	109,604
Sewing machines.....	1,884,395	1,772,046
Mowers and reapers.....	754,468	376,694
Plows and cultivators.....	216,942	132,349
Other agricultural implements not specified.....	577,037	360,530
Tan-bark.....	152,460	126,447
Books, maps, &c.....	578,757	318,777
Bricks.....	557,974	182,811
Carriages, &c.....	374,030	247,550
Clocks.....	639,451	502,801
Cordage.....	318,665	281,217
Fancy goods.....	287,919	180,791
Canned fruit.....	239,121	201,068
Furs and skins.....	3,707,567	1,695,051
Glass and furniture.....	540,037	369,656
Cables of hemp.....	227,640	182,164
Hides.....	1,263,525	1,022,678
Organs, melodeons, etc.....	186,963	94,831
Pianos.....	152,558	138,890
Rosin and turpentine.....	3,179,573	1,689,820
Tar and pitch.....	131,963	84,563
Lard.....	16,916,402	12,728,650
Preserved meats.....	532,931	184,544
Bacon and hams.....	19,451,449	9,209,898
Cheese.....	7,667,597	7,231,759
Scales.....	129,955	86,564

Comparative statement of Exports during the year 1872.

		1872.
Austria.....	Petroleum.....	\$145,271
Belgium.....	do.....	3,409,764
Denmark.....	do.....	196,415
France.....	do.....rosin, &c.....	1,057,959
French West Indies.....	Corn, wheat, provisions, &c.....	27,380
Germany.....	Petroleum, tallow, &c.....	3,750,542
England.....	Miscellaneous.....	1,578,479
Scotland.....	Corn, oil-cake, molasses, &c.....	216,168
Ireland.....	Miscellaneous.....	2,959,925
Gibraltar.....	Petroleum and wearing apparel.....	330,846
Dominion of Canada.....	Corn, coal, iron, &c.....	200,445
British West Indies.....	Grain, oil-cake, provisions, &c.....	1,230,609
Greece.....	Petroleum.....	24,120
Italy.....	Petroleum, turpentine, &c.....	599,564
Netherlands.....	Wheat, petroleum, tallow, &c.....	1,698,011
Dutch West Indies.....	Wheat, petroleum, &c.....	56,009
Portugal.....	Petroleum, ice, tobacco, &c.....	202,258
Portuguese Posses., (Azores).....	Drugs, petroleum, perfumery, &c.....	9,323
Russia.....	Petroleum, rosin, iron, &c.....	435,999
Spain.....	Petroleum, &c.....	187,972
Cuba.....	Machinery, provisions, cooperage, &c.....	1,359,304
Porto Rico.....	Wheat, provisions, cooperage, &c.....	181,168
Peru.....	Iron machinery.....	213,500
Sweden.....	Petroleum, &c.....	60,195
Turkey.....	Petroleum.....	49,925
U. S. of Colombia.....	Coal.....	1,500
Venezuela.....	Wheat, drugs, provisions, &c.....	252,052
Total.....		20,484,803

PHILADELPHIA BUSINESS INTERESTS.

The following is gleaned from the proceedings of the annual meeting of the Board of Trade of Philadelphia, held on the evening of January 26, 1874, in the Mercantile Library building, Tenth street, above Chestnut. John Welsh, Esq., occupying the chair.

ANNUAL REPORT.

Agreeably to the requirements of the constitution of the Philadelphia Board of Trade, the Executive Council presented to the association a report of their proceedings for the year terminating February 1, 1874.

The topics submitted to their consideration were acted on in following order :

OCEAN MAIL STEAMSHIP SERVICE.

Early in the year 1873, it was urged upon Congress to provide for the carriage of the mails between this country and England, in American built iron steamships. The people of the United States have long been mortified by the meagre exhibition of the American flag upon the seas. They are naturally desirous that the government shall show its sympathy with pub-

lie sentiment by prompt encouragement of every judicious effort to regain our last prestige. Nor can it be doubted that it will lend its aid in the manner proposed, when the matured organization of American lines shall have fitted them for the rapid and uninterrupted transportation of the mails. The arrangements that have been effected between the American steamship and international lines will greatly facilitate and enlarge our intercourse with Europe. It is thus a decided step toward securing the carriage of the mails in their well appointed ships.

CENTENNIAL EXPOSITION.

The board has taken a lively interest in the promotion of this great enterprise. It has appealed to the State for the grant of a million dollars in its behalf. It has pressed its claims upon the attention and support of every citizen. Liberal contributions have been made by the people of our city and State, and favorable responses to applications for assistance and co-operation have been received from our sister States. A just concern for the reputation of our common country demands that nothing shall be left undone to make the exposition successful in every point. The position of Philadelphia in our historic annals has determined its location here, but its spirit and design embrace the farthest limits of our vast territory. It devolves, therefore, upon Congress to see that its skill and resources shall be adequately displayed on this memorable occasion.

PROTECTION AGAINST FIRES.

Upon this most important subject a very thorough report has been made to the board by a committee appointed for that purpose. The committee recommend that the city should construct two floating fire engines on the Delaware front, and one on the Schuylkill front, to be propelled by steam, and to be at all times ready for service on the summons of the fire department. They also recommend the passage of ordinances regulating the materials for roofing and cornices of buildings, and the arrangement of connecting timbers; also for the storage of inflammable and explosive substances. They also point out the necessity for a greater supply of water, which can only be secured by the use of larger mains and of powerful steam pumps. As all the improvements proposed by the committee are of indisputable value, it is hoped that our city government will at no distant date supply them all. The floating engines are so much needed that they should, ere this, have been built and in service.

IMPROVEMENT OF OUR RIVER AND BAY NAVIGATION.

The repeated appeals to the government for the improvements of our rivers and bay, have resulted in the grant of an appropriation of \$50,000 for each of the light houses to be built on Cross Ledge, Ship John and

Bulkhead Shoals, and of \$8,000 for one on the southern end of Pea Patch Island. Also, \$10,000 for a buoy depot at Christiana; \$50,000 for deepening the water at Fort Mifflin bar, and \$50,000 to prevent obstructions at the Horse-shoe.

We have now three powerful ice boats, the ability of which to break up the heaviest ice that can form in our waters is not to be doubted. The last of the three has just been completed, and is admirably adapted to that purpose. This vessel is constructed staunchly of iron. Working with her sister boats, she will keep our rivers free, and prove to all that we are practically alive to the requirements of our increasing commerce.

THE PANIC.

In concluding our report, we congratulate the members of the board upon the passing away of the financial pressure which has been so severely felt during the autumn months of 1873. Business is regaining its usual proportions and activity. It is with pride as well as pleasure we allude to the staunchness of the business community throughout this period of stern trial. It has shown itself possessed of financial strength, prudence and common sense. We entertain bright hopes of renewed prosperity with such men to conduct our trade.

The permits for building improvements issued during the year 1873 number 6,530, showing an increase over 1872 of 108.

The arrivals of coastwise and foreign vessels at our ports during the same period amounted in all to 10,734, of which one-fourth were propelled by steam. Our trade has grown, is growing, and will grow. Moreover it is calculated that at least 80,000 tons of new shipping will leave the ship-yards on the Delaware in 1874. These few items are full of encouragement. They teach that steady effort wins success.

[From *Pittsburg Commercial*.]

PITTSBURG IRON INTERESTS, SEPTEMBER, 1873.

Let any one pass forty-eight hours in the city of Pittsburg just now, and he will acknowledge the liveliness of its iron manufacture. The fact is, that the general demand for iron of all descriptions is such that it is as much as the manufacturers can do to supply it. The total production of pig iron in the United States last year was about 2,000,000 tons. Of this amount Pittsburg consumed one-fourth—500,000 tons; of which she made close on 200,000 herself.

The following table giving the exports of rails from great Britain, will show where her main loss of trade is, viz: with the United States. It is a comparison of the exports of the first six months of the current year with

those of the same periods in 1871 and 1872. This year shows a falling off of over 100,000 tons compared with last year, but the falling off in the exports to this country is nearly 140,000 tons. Elsewhere there is a gain of 40,000 tons:

To	1871. Tons.	1872. Tons.	1873. Tons.
United States	244,784	259,011	120,468
British America.....	27,279	28,298	29,774
Spanish W. I. Islands.....	534	638	2,718
Brazil	11,615	12,407	3,963
Chili	5,490	1,352	2,908
Peru	12,694	21,491	5,467
Russia.....	46,929	21,064	47,780
Sweden.....	4,412	8,144	15,876
Germany.....	32,220	16,722	26,375
Austrian Territories.....	5,518	6,275	95
France.....	1,030	232	2,139
Holland.....	5,729	2,117	8,241
Spain and Canaries.....	5,568	6,135	6,548
British India	26,766	6,624	8,132
Australia	10,468	10,827	9,293
Egypt.....	646	10,167	1,667
Other countries.....	34,509	36,543	56,313
Total.....	<u>476,191</u>	<u>448,042</u>	<u>347,757</u>

ROLLING-MILLS—PITTSBURG.

The following statement exhibits the estimated value of the productions of the Pittsburg rolling-mills during the year 1872:

Bar and sheet iron, (net tons,).....	400,000
Twenty-six million bushels of coal consumed in its manufacture, say 25 bushels to a ton, at average cost of 8 cents...	\$2,080,000
Labor, average \$18 per ton.....	7,200,000
Fire-brick and clay, \$1 per ton.....	400,000
Ore for settling 50,000 tons, at \$16.....	800,000
Oiling machinery, at 10 cents per ton.....	40,000
Metal consumed, (tons,)	480,000
Repairs.....	Unknown
Average value \$80 per ton.....	\$32,000,000

STEEL WORKS—PITTSBURG.

The following statement exhibits the estimated production and value of steel produced at the several steel works of Pittsburg, during the year 1872, with the annual capacity of each:

	Tons.
Hussey, Wells & Co., capacity per annum	12,000
Park, Brother & Co.....do.....do.....	10,000
Anderson & Woods.....do.....do.....	10,000
Miller, Barr & Parkin.....do.....do.....	8,000
Singer, Nimmick & Co ....do.....do.....	8,000
Reese, Graeff & Woods.....do.....do.....	5,000
Brown & Co .....do.....do.....	1,500
Reiter, Lavelly & Co .....do.....do.....	1,000
Total tons	55,500
Total tons produced, 1872.....	27,520
Average value, \$250 per ton.....	\$6,880,000

[From *Pittsburg Commercial*.]

RUSSIAN SHEET IRON.

Pittsburg, so appropriately called the "Iron City," and the "Birmingham of America," has contributed in no small degree to the development of new processes, and the invention of new machinery and appliances in connection with the manufacture of iron and its manifold products. These inventions and improvements have taken a very wide range, extending to things small and great—ornamental as well as useful. The making of the tiny tack, the nail, the nut and the bolt, has engaged the attention of the practical and scientific, no less than the forging of the massive plate and the casting of the twenty-inch gun. Until very recently, the manufacture of sheet iron corresponding in quality and finish to that known throughout the world as "Russian," was produced, by a secret process, in the mills of Siberia. No other country had been able to make this particular kind of iron; and not even the stimulus of an offer of £50,000 by the British government, was sufficient to accomplish the desirable result in England. Pittsburg skill and enterprise, however, have been equal to the task, and the well-known firm of Messrs. Rogers & Burchfield are now manufacturing sheet iron every way equal to the Russian brand, and have sent their first consignment of finished Russian sheet to Liverpool, England. Their

present capacity in this important speciality is two tons per day, but their facilities can be increased indefinitely, to meet all demands of the trade. They can manufacture this iron and sell it to the English consumer cheaper than it can be imported from Russia to England. The importation of Russian sheet iron has, as is well known to dealers, been controlled altogether by a single New York house, and all imported sheets were of one size—twenty-eight by fifty-six inches. This did not suit American purchasers, who can now have any sized sheet they wish to order. The capacity of these mills is from sixty to seventy-five tons per week, according to the kind of work being turned out.

[From *Pittsburg Commercial*.]

ANOTHER NEW INDUSTRY.

MANUFACTURE OF PIG LEAD IN PITTSBURG—AN IMPORTANT ENTERPRISE—
SMELTING OF THE LEAD AND SILVER ORES OF COLORADO AND UTAH.

A number of enterprising capitalists of this city have been engaged experimenting in the smelting of the lead and silver-bearing ores of Colorado and Utah, for the purpose of demonstrating whether the business can be carried on here at a profit. The results having proved satisfactory, and arrangements having been made for the erection of a large smelting works, a brief history of this important enterprise will be read with interest:

Attention was first called to this subject by the fact that the greater portion of the ores produced in Utah and Colorado were being shipped to Europe for reduction, while the white lead manufacturers of this city had been almost entirely dependent upon the foreign markets, for the past six or seven years, for their raw materials. It was concluded that good pig lead could be manufactured here as well as in England or Germany. Accordingly, in Allegheny City, during last summer and fall, large works were erected for the smelting and refining of the ores mentioned. The works were completed in due time, and are now in successful operation, as is abundantly proved by the fine samples of pig lead and silver bullion on exhibition.

The following analysis, made by Prof. Charles T. Jackson, State Assayer of Massachusetts, one of the most prominent chemists in the country, attests the success which has been attained:

Lead	98.992
Zinc	0.724
Iron	0.280
Silver	0.004
	<hr/>
	100.000

By this analysis it will be seen that the proportion of silver remaining in the lead is but two-thirds of an ounce troy to the ton of two thousand pounds, which renders the lead suitable for the finest purposes, fully equal in every respect to the best English and German brands, which have for so many years been the standard in this market.

Works for the reduction of Pacific Slope ores are now in operation in New York, Newark, Chicago, Omaha and San Francisco, but none of them have succeeded in making lead suitable for white lead or sheet lead. Pittsburg, therefore, fairly claims the honor of having been the first city in the United States to produce good, soft lead from our silver-bearing ores.

A stock company, with an ample capital, has been organized under the title of the "Pittsburg Smelting and Refining Company." The works are now being operated by this company, and in addition to the present manufactory—which has a capacity of fifty tons of pig lead per week—the company have recently purchased a tract of land near Mansfield, about six miles from the city, on the Pittsburg, Cincinnati and St. Louis railway, near where it crosses Chartiers creek, upon which they will erect large furnaces for the reduction of ores. Their capacity will thus be increased to at least one hundred tons of pig lead per week, worth at present market value over \$17,000 and representing an annual product not far below \$1,000,000. The ores carry silver largely, varying from seventy-five ounces to five hundred ounces to the ton, which product must be added to the value of the pig lead in order to make a fair estimate of the amount of business now done and proposed to be done.

A ready market can be had for all the lead of this quality manufactured here. The annual consumption of pig lead in this city alone is now over seven thousand tons, of which a very small proportion is of common grades. In the manufacture of white lead, according to estimates of reliable parties, there is a capital employed here of \$1,150,000; \$1,550,000 are paid yearly for raw materials, and the annual product amounts to \$1,750,000. This branch of business is growing rapidly, and must still further increase with an abundant supply of raw material of the best quality to be had at home.

Many of our coke dealers are now shipping their product largely to Utah, for smelting purposes; but the Pittsburg Smelting and Refining Company, taking as a precedent the iron furnaces of Western Pennsylvania, are fully convinced that the raw material must be brought to the fuel, and that the shipping of fuel to the ore beds must eventually cease. A large amount of Pittsburg capital is now profitably employed in mines in Utah, and new investments are being made by our capitalists. It is therefore fit that these ores, produced by Pittsburg capital, should be brought to our city for treatment, especially in view of the fact that it has been successfully demonstrated that it can be done to better advantage

here than at any other point in the country. The supplies of ore are almost inexhaustible—it being estimated, by reliable parties, that the product of Little Cottonwood canon, Utah, alone, will this year average about seven hundred tons per day. With unlimited supplies of the raw material, and with an abundant demand for the manufactured product, the Pittsburg Smelting and Refining Company bids fair to become one of the most important manufacturing adjuncts of our prosperous and progressive city. The smelting of lead being an entirely new branch. It is so much clear gain to the industrial interests of Pittsburg.

PITTSBURG COTTON MILLS.

C. W. Batchelor, president of the Eagle Cotton Mills Company of Pittsburg, furnishes the following with regard to the cotton mills of the city:

Number of mills.....	5
Aggregate number of spindles running.....	40,000
Bales of cotton consumed per year (480 pounds to bale).....	10,500

The chief products are brown sheetings, carpet chain, bags and cotton yarns.

[From *Pittsburg Commercial*.]

WHOLESALE LIQUOR DEALERS OF PITTSBURG.

RETURNS OF SALES—FIRMS DOING A BUSINESS OF TWENTY THOUSAND DOLLARS AND OVER.

We publish below the returns of wholesale liquor dealers of the county, doing business of \$20,000 and over per year, as made to the office of the clerk of courts. It may be stated that these returns are for the year commencing May 1, 1873, and are estimated on the sales of the previous twelve months:

PITTSBURG.

Schmidt & Friday.....	\$210,000
Little & Mechling.....	145,000
M. M'Cullough, Jr., & Co.....	125,000
Casey & Fogerty.....	120,000
Adler, Rosenberg & Co.....	120,000
James M'Kay.....	98,000
James K. Lanahan.....	95,000
A. Guekenheimer & Bros.....	85,000
Speck & Morrow.....	90,000

LIQUOR DEALERS.

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Miller, Force & Co.....	\$80,000
M. Munnhall & Co.....	74,000
Dillinger & Stevenson.....	70,000
John Seiferth & Co.....	70,000
Roedelheim & Affeider.....	70,000
John M'Cullough.....	53,000
John Roth & Son.....	49,000
Fred. Evert.....	48,000
S. S. Watters & Co.....	48,000
Marshall Bros. & Co.....	48,000
Thos. R. Kerr.....	46,000
A. G. M'Grew & Co.....	45,000
Rodelheim & Bing.....	45,000
S. M'Crickart & Co.....	40,000
Mary Eyart.....	38,000
S. H. Watson & Co.....	35,000
Ludwig & Robinson.....	40,000
Wm. H. Holmes.....	25,000
Kiser & Clark.....	24,000
Dierker & Thompson.....	24,000
Morganstern & Strouse.....	24,000
Jas. Getty, Jr.....	24,000
Jos. S. Finch.....	23,500
John M'Devitt.....	23,000
Weller Bros.....	22,000
R. E. Sellers & Co.....	20,000
J. G. Milligan & Bros.....	20,000
George H. Bennett & Bro.....	20,000
Wormser & Jonas.....	20,000
S. Klingordlinger.....	20,000

ALLEGHENY.

J. S. Hespenheide.....	\$35,000
Robert Carson.....	24,000
E. T. Cooper.....	20,000
Heidenger & Anderson.....	20,000
Thomas Byrne.....	20,000

[From *Pittsburg Commercial*.]

STATISTICS OF THE TRADE OF 1873—IRON, IRON ORE, COAL, PETROLEUM, PRODUCE, &c.

Receipts of Pig Iron, Iron Ore and Blooms—Receipts and Shipments of Coal and Coke, Oil, Grain and General Produce.

The business of Pittsburg, in its leading features of iron, iron ore, coal, coke, petroleum, produce, etc., does not exhibit the same gratifying growth during the year 1873, as in the years immediately preceding. On the whole, however, the showing is very satisfactory.

THE IRON TRADE.

A glance at our tables of the receipts of iron ore and pig iron will show an actual increase of 53,011 tons over those of 1872. The apparent increase is 134,532 tons; but in our receipts for 1872 we were unable to include those at the Manchester station of the Cleveland and Pittsburg railroad, which appears in this year's tables, and aggregate 82,523 tons. Estimating the receipts from this source, in 1872, as equal to those of last year, and the actual increase would be as above stated. The totals are as follows:

ORE RECEIPTS—1873.

	<i>Tons.</i>
By rail—Lake Superior.....	202,840
By rail—Lake Champlain,.....	3,440
By river—Iron Mountain.....	88,489
By rail—Iron Mountain.....	24,580
Native ores	1,492
Total ore receipts.....	320,842

PIG IRON RECEIPTS—1873.

	<i>Tons.</i>
By rail	280,332
By river	17,801
Blooms and scrap iron.....	12,209
Total.....	310,342

	<i>Tons.</i>
Total receipts, pig metal and ore for 1873.....	496,648.
Total receipts for 1873	631,182
Apparent increase.....	134,534

The total receipts of iron ore, pig metal and blooms, for 1871, were 367,207 tons.

This is a very good showing, considering the depressed condition of the trade throughout the country.

There has been no increase in the number or capacity of our blast furnaces during the year. We have eleven furnaces in all, with an aggregate capacity of 3,200 tons per week.

COAL AND COKE.

The statistics of the coal trade for 1873 show a falling off, compared with the receipts and shipments of 1872. Two causes have tended to this result. In midsummer the miners began an agitation for the purpose of procuring payment for "nut" coal, which the operators refused, and in a few weeks nearly all the river mines had suspended work. The miners on the railroads became involved in the same struggle, with a similar result. The workmen were still out when the panic came, and the end of the year was almost reached before work was fully resumed. The production was very considerably diminished from these causes. The total receipts were—

	<i>Coal, bushels.</i>	
1872—By water.....	57,708,800	
By rail	57,356,346	
	<hr/>	115,065,146
1873—By water.....	56,173,238	
By rail	50,373,101	
	<hr/>	106,546,339
Decrease.....		<hr/> <hr/> 8,518,807

It is proper to explain that the receipts by river embrace mainly the coal mined for export to the south and west, while those by rail are mostly for home consumption.

The coke trade has fallen off largely in consequence of the depression in the iron business, the strike among the miners, and the panic. The figures sum up as follows:

	<i>Coke, bushels.</i>
1872.....	43,927,965
1873.....	34,230,500
Decrease.....	<hr/> <hr/> 9,697,465

OIL.

The business in crude oil has very largely increased, but it is well known that the prices have been ruinously low in consequence of augmented pro-

duction. The exports of refined show a marked increase. The following is a summary :

	1872.	1873.	Increase.
Receipts of crude, barrels	1,186,500	2,035,182	848,682
Exports of refined, barrels	743,510	869,946	126,436

GRAIN, PRODUCE, ETC.

Produce receipts for the past five years.

	1869.	1870.	1871.	1872.	1873.
	<i>Bbls.</i>	<i>Bbls.</i>	<i>Bbls.</i>	<i>Bbls.</i>	<i>Bbls.</i>
Apples	71,966	100,000	102,017	59,539	70,197
Flour	301,723	249,537	237,302	313,382	396,605
	<i>Sacks.</i>	<i>Sacks.</i>	<i>Sacks.</i>	<i>Sacks.</i>	<i>Sacks.</i>
Barley	138,704	94,648	146,851	104,384	196,981
Corn	176,769	126,563	216,371	243,825	178,091
Oats	196,843	231,227	355,799	389,247	545,833
Rye	135,667	44,825	67,847	53,699	65,058
Wheat	203,852	256,517	252,224	213,814	228,417
	<i>Pkgs.</i>	<i>Pkgs.</i>	<i>Pkgs.</i>	<i>Pkgs.</i>	<i>Pkgs.</i>
Butter	10,719	11,611	15,712	14,447	12,367
	<i>Pieces.</i>	<i>Pieces.</i>	<i>Pieces.</i>	<i>Pieces.</i>	<i>Pieces.</i>
Bacon	97,845	81,596	216,692	367,732	340,694
	<i>Boxes.</i>	<i>Boxes.</i>	<i>Boxes.</i>	<i>Boxes.</i>	<i>Boxes.</i>
Cheese	33,195	42,752	53,581	54,949	46,351

IMPORTS OF GRAIN AT THE ELEVATOR.

The following are the amounts of grain received at Pittsburg grain elevator, from January 1 to December 31, for the past four years :

	1870.	1871.	1872.	1873.
	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>	<i>Bushels.</i>
Wheat	171,845	152,894	467,785	319,089
Corn	81,465	175,546	225,641	229,715
Rye	17,934	71,925	259,333	95,856
Oats	57,497	316,881	495,200	557,211
Barley	108,601	251,830	325,024	334,387

RECEIPTS OF PIG IRON AND ORE BY RAILROAD AND RIVER.

The following is a summary of monthly rail receipts of pig iron, ore and blooms :

	1869.	1870.	1871.	1872.	1873.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Pittsb'g, Ft. Wayne & Chi. R. R.	88,510	112,400	174,490	151,500	137,490
Cleveland & Pittsburg Railroad	41,750	60,810	61,600	108,100	224,400
Pennsylvania Railroad	58,180	68,620	58,240	86,385	57,810
West Penn. Railroad	120	1,909	6,180	27,440	33,230
Allegheny Valley Railroad	7,670	8,180	14,710	19,900	22,560

COAL AND COKE.

COAL.

The following is the official report of the coal and coke trade of the Monongahela Valley for the past year:

MONTHS.	Pool No. 1.	Pool No. 2.	Pool No. 3.	Pool No. 4.	Total.
January.....	232,000	2,897,500	849,800	660,000	4,640,200
February.....	800,000	3,043,250	647,300	481,500	4,971,800
March.....	926,000	4,554,700	962,100	679,800	7,112,600
April.....	1,353,600	5,428,600	1,722,000	1,484,100	9,989,300
May.....	947,500	3,352,500	1,067,400	1,092,800	6,487,200
June.....	263,000	2,217,600	739,000	668,200	3,887,800
July.....	904,000	1,999,500	1,291,800	1,549,800	5,745,100
August.....	389,500	236,000	140,300	448,400	1,215,200
September.....	31,500	16,000	148,700	368,700	584,900
October.....	371,000	899,000	523,000	1,101,100	2,894,100
November.....	915,900	1,748,500	717,128	1,028,660	4,410,128
December.....	694,100	1,023,000	801,100	741,300	3,259,400
Total.....	7,828,100	28,416,150	9,619,628	10,309,360	56,173,238

PENNSYLVANIA RAILROAD.

The following are the receipts of coal by the Pennsylvania railroad for the past four years:

Bituminous Coal—300 Bushels to a Car.

SHIPPERS.	Cars.	Tons.	Bushels.
New York and C. and P. coal company.....	25,000	300,000	7,800,000
Dickson, Stewart & Co.....	7,500	90,000	2,250,000
Duquesne coal company.....	5,855	70,260	1,740,000
Braddocks Field coal company.....	6,000	72,000	1,800,000
Corey & Co.....	1,500	18,000	450,000
C. H. Armstrong.....	4,900	58,800	1,470,000
Youghiogheny Coal H. C. company.....	200	2,400	60,000
Total 1873.....	50,955	.....	15,570,000
1872.....	57,947	.....	17,384,104
1871.....	51,000	.....	14,800,000
1870.....	33,700	.....	10,110,000

Anthracite Coal Receipts.

SHIPPERS.	Cars.	Tons.	Bushels.
Laing & M'Kallip.....	500	.....	150,000

PITTSBURG.

PITTSBURG AND CASTLE SHANNON RAILROAD.

	1872. Bushels.	1873. Bushels.		1872. Bushels.	1873. Bushels.
January.....	321,043	286,012	July.....	179,500	140,203
February.....	320,582	279,013	August.....	221,148	230,733
March.....	330,445	322,440	September.....	250,074	320,582
April.....	284,329	279,418	October.....	278,030	371,541
May.....	247,337	238,482	November.....	222,223	259,968
June.....	228,835	184,497	December.....	282,258	379,460
			Total.....	3,168,432	3,292,349

PITTSBURG AND CONNELLSVILLE RAILROAD.

	Cars.--300 bus. to c.	No. of Bushels.		Cars.--300 bus. to c.	No. of Bushels.
Total, 1873.....	40,118	12,035,400	Total, 1871.....		16,714,100
Total, 1872.....		16,999,900	Total, 1870.....		7,838,100

PITTSBURG, CINCINNATI AND ST. LOUIS RAILWAY, FROM JAN. 1, to DEC. 31, 1873.

	Cars.	Tons.	Bushels.
Total.....	25,334	253,341	7,600,200

ALLEGHENY VALLEY RAILROAD.

	Tons.	Bushels.		Tons.	Bushels.
Total, 1873.....	214,032	7,705,152	Total, 1871.....	208,462	5,682,600
Total, 1872.....	223,987	6,039,700	Total, 1870.....	205,005	5,125,120

COKE.

PITTSBURG AND CONNELLSVILLE RAILROAD.

	Cars. 600 bush.	No. bush.		Cars. 600 bush.	Bushels.
Total, 1873.....	51,585	30,951,000	Total, 1871.....		14,237,700
Total, 1872.....		27,955,265	Total, 1870.....		4,638,000

STATISTICS OF TRADE OF 1873.

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COKE RECEIPTS PER SLACK WATER FOR THE PAST TWO YEARS.

	Pool No. 2, 1872, bu.	Pool No. 2, 1873, bu.	Total.
January.....	146,200	48,000	194,200
February.....	126,500	263,500	390,000
March.....	170,000	329,000	499,000
April.....	281,500	744,500	1,026,000
May.....	473,500	394,500	868,000
June.....	350,000	240,500	590,500
July.....	322,400	316,500	638,900
August.....	338,100	124,000	462,100
September.....	40,000	15,000	55,000
October.....	91,500	572,000	663,500
November.....	653,000	116,000	769,000
December.....	147,000	116,000	263,000
Total.....	3,071,700	3,279,500	6,351,200

COAL AND COKE SHIPMENTS BY RIVER FOR THE PAST FOUR YEARS.

	1870, bush.	1871, bush.	1872, bush.	1873, bush.
January.....	4,729,000	5,084,000	8,021,000	7,995,000
February.....	4,187,000	6,857,000	.....	7,995,000
March.....	7,834,000	11,424,000	128,000	8,787,000
April.....	4,902,000	5,728,000	17,468,000	8,036,000
May.....	6,527,000	8,267,000	116,000	4,822,000
June.....	1,924,000	.....	8,223,000	.....
July.....	4,899,000	.....	9,520,000	6,420,000
August.....	637,000	200,000	115,000	5,447,000
September.....	.....	.....	.....	.....
October.....	.....	.....	9,752,000	6,366,000
November.....	1,334,000	6,002,000	.....	3,730,000
December.....	4,200,000	.....	.....	2,007,000
Total.....	41,175,000	43,562,000	53,343,000	62,605,000
Saw Mill Run, estimated.....	.....	3,000,000	3,500,000	4,000,000

SHIPMENTS OF COAL THROUGH THE MONONGAHELA NAVIGATION COMPANY'S LOCKS SINCE NOVEMBER, 1844.

	Total in bushels.	Tolls.		Total in bushels.	Tolls.
1844.....	737,150	.....	1859.....	28,286,671	\$39,065 65
1845.....	4,605,185	\$3,383 79	1860.....	37,947,732	52,081 17
1846.....	7,778,911	10,221 28	1861.....	20,865,722	30,945 92
1847.....	9,645,127	13,241 94	1862.....	18,583,956	26,709 29
1848.....	9,819,361	12,438 43	1863.....	26,444,252	40,532 08
1849.....	9,708,507	13,533 30	1864.....	35,070,917	61,384 29
1850.....	12,297,937	17,023 57	1865.....	39,522,792	69,608 48
1851.....	12,521,228	17,850 24	1866.....	42,615,300	77,811 26
1852.....	14,630,841	29,614 18	1867.....	30,072,703	54,855 63
1853.....	15,716,387	21,291 86	1868.....	45,301,000	91,376 38
1854.....	17,331,946	25,079 51	1869.....	52,612,600	104,936 61
1855.....	22,234,009	31,050 58	1870.....	57,596,400	118,705 68
1856.....	8,584,095	10,536 42	1871.....	48,621,300	100,338 64
1857.....	28,973,596	37,111 41	1872.....	54,203,800	115,609 20
1858.....	25,696,669	34,354 49	1873.....	58,276,995	116,728 75

CITY OF ERIE.

Port Exhibit of Trade and Commerce of Erie for the years 1872 and 1873, from the Official Records of the Custom House.

The classified statement being somewhat lengthy in all its details of import and export, the heavy articles only are noted in this general review, which will serve to show in a concise and satisfactory manner the activity that invests our north-western port of entry.

AGRICULTURAL PRODUCTS.

<i>Imports—Coastwise.</i>	1872.	1873.
Barley, bushels	39,946	37,500
Corn, bushels	621,113	1,341,478
Corn meal, barrels	150	850
Feed sacks, No	515	20,000
Flour, barrels	178,763	216,309
Oats, bushels	947,895	351,393
Oatmeal, barrels .....	.....	100
Rye, bushels .....	.....	14,181
Wheat, bushels	937,374	2,511,756
<i>Imports—Foreign.</i>		
Barley, bushels	100,804	165,099
<i>Exports—Coastwise.</i>		
Flour, barrels .....	.....	302
Wheat, bushels .....	.....	7,000

COAL.

<i>Exports—Coastwise.</i>	1872.	1873.
Anthracite coal, tons	175,589	100,486
Bituminous coal, tons	174,344	215,717
<i>Exports—Foreign.</i>		
Coal, tons	226	9,508

IRON AND BUILDING MATERIALS.

<i>Imports—Coastwise.</i>	1872.	1873.
Iron ore, tons	210,879	200,660
Pig iron, tons	1,594	1,532
Lead, pigs .....	.....	18,493
Lumber, feet	20,140,740	31,224,623
Shingles	200,000	1,210,000
Lath	95,750	862,000
Paving stone, cords	526	2,116

STATISTICS OF TRADE OF 1873.

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Telegraph poles	822	4,300
Cement, barrels	2,700	2,400
Limestone, cords	1,275	1,755

Imports—Foreign.

Iron ore, tons	4,340	4,116
Limestone, cords .....	.....	40
Lumber, feet	1,147,000	65,000
Plaster, tons .....	.....	95
Staves .....	.....	50,000
Barrel, headings, pieces .....	.....	35,000
Cedar posts .....	.....	400

Exports—Coastwise.

Boiler iron, sheets .....	.....	608
Car wheels, tons .....	.....	200
Castings, packages	1,245	1,074
Cement, barrels	421	1,051
Chain, pieces	43	270
Chain, casks	60	42
Engines and fixtures	20	12
Hardware, packages	4,998	4,549
Iron bolts, packages	2,539	10
Iron boilers	6	8
Iron links .....	.....	12
Iron pipes, pieces	8,411	21,073
Iron pipes, tons	1,737	55
Iron reducers .....	.....	4
Lead pipe, boxes	58	18
Machinery, pieces	8	502
Marble	9	502
Nails, kegs	23,748	4,424
Nuts, bags	2,216	1,892
Plaster, barrels	833	1,104
Propeller wheels	1	11
Red lead, packages	5	105
Railroad iron, tons	56,165	3,865
Railroad spikes, kegs	14,770	1,335
Round iron, bundles .....	.....	746
Saws, bundles	100	40
Scythes, bundles	34	147
Shovels, bundles	2,355	1,432
Sheet iron .....	.....	181

Stoves.....	1,400	2,048
Steel, bundles	1,090	6
Wire rigging, coils.....	3	33
Wire, bundles	588	360
	<u> </u>	<u> </u>

LIQUORS.

<i>Imports—Coastwise.</i>	1872.	1873.
Beer, casks.....	....	2,283
Bitters, boxes.....	....	10
Gin, casks.....	....	2
Liquors, boxes.....	....	79
Whiskey, barrels.....	....	71
Wine, boxes.....	65	76

Exports—Coastwise.

Ale, casks.....	35	262
Beer, kegs.....	65	1,632
Bitters, boxes.....	1,561	622
Brandy, boxes	28	10
Liquor, barrels.....	410	1,981

Imports—Coastwise.

Pork, barrels.....	1,058	3,371
Salt, barrels.....	12,016	15,007
	<u> </u>	<u> </u>

SUGAR AND MOLASSES.

<i>Exports—Coastwise.</i>	1872.	1873.
Molasses, barrels.....	4,302	4,023
Molasses, hogsheads.....	52	43
Sugar, barrels.....	58,882	39,944
Sugar, hogsheads .....	.....	24
Syrup, barrels	8,282	1,986
Syrup, kegs .....	.....	1,842
Syrup, hogsheads .....	.....	25
	<u> </u>	<u> </u>

GOVERNOR AND HEADS OF DEPARTMENTS.

Governor.

John F. Hartranft, Montgomery county.

Private Secretary.

A. Wilson Norris, Philadelphia.

Secretary of the Commonwealth.

Matthew S. Quay, Beaver county.

Deputy Secretary of the Commonwealth.

John B. Linn, Centre county.

Chief Clerk.

Thomas M'Camant, Blair county.

Attorney General.

Samuel E. Dimmick, Wayne county.

Deputy Attorney General.

Lyman D. Gilbert, Dauphin county.

Auditor General.

Harrison Allen, Warren county.

Chief Clerk.

D. C. Maurer, Dauphin county.

State Treasurer.

R. W. Mackey, Allegheny county.

Cashier.

W. B. Hart, Montgomery county.

MISCELLANEOUS.

Surveyor General.

Robert B. Beath, Schuylkill county.

Chief Clerk.

R. A. M'Coy, Cambria county.

Superintendent of Common Schools, and Superintendent of Soldiers' Orphan Schools.

James P. Wickersham, Lancaster county.

Deputy Superintendent Common Schools.

Henry Houck, Lebanon county.

Adjutant General.

James W. Latta, Philadelphia.

Chief Clerk.

George C. Kelly, Union county.

Chief of Bureau of Statistics.

Thomas J. Bigham, Allegheny county.

State Librarian.

O. H. Miller, Allegheny county.

Superintendent of Public Printing.

John M'Curdy, Cumberland county.

Superintendent of Public Buildings and Grounds.

S. Harvey Walters, Dauphin county.

State Printer.

Benjamin Singerly, Allegheny county.

MEMBERS OF THE SENATE OF PENNSYLVANIA.

No. of district.	Counties composing district.	Name.	Post Office.	Term ends.
1st....	Philadelphia.....	J. B. Alexander, R....	1808 Chestnut street,	1875
2d....	Philadelphia.....	E. W. Davis, R.....	1419 North 16th st...	1874
3d....	Philadelphia.....	John Lamon, R.....	1303 Marlboro street,	1876
4th....	Philadelphia.....	Alex. K. M'Clure, L. R.	144 South 6th street,	1874
5th....	Chester and Delaware..	Thomas V. Cooper, R..	Media.....	1876
6th....	Montgomery.....	Wm. A. Yeakel, R....	Norristown.....	1876
7th....	Bucks and Northa'pton,	Harman Yerkes, D....	Doylestown.....	1876
8th....	Berks.....	Dan'l Ermentrout, D..	Reading.....	1876
9th....	Lancaster.....	John B. Warfel, R....	Lancaster.....	1875
10th....	Schuylkill.....	Oliver P. Bechtel, D...	Pottsville.....	1876
11th....	Lehigh and Carbon.....	Edwin Albright, D....	Allentown.....	1876
12th....	Dauphin and Lebanon..	J. G. Heilman, R.....	Jonestown.....	1875
13th....	Luzerne, Monroe and Pike.....	F. D. Collins, D.....	Scranton.....	1874
		Geo. H. Rowland, D...	Rowland, Pike co...	1875
14th....	Bradford, Susquehanna, Wayne and Wyoming,	Lafayette Fitch, R....	Montrose.....	1874
15th....	Columbia, Montour, Lycoming and Sullivan..	Thomas Chalfant, D...	Danville.....	1875
16th....	Cameron, M'Kean, Potter and Tioga.....	B. B. Strang, R.....	Westfield.....	1874
17th....	Snyder, Perry, Northumberland and Union,	A. H. Dill, D.....	Lewisburg.....	1876
18th....	Clinton, Cambria, Clearfield and Elk.....	Wm. A. Wallace, D....	Clearfield.....	1874
19th....	Cumberl'd and Franklin	J. M. Weakley, R.....	Carlisle.....	1874
20th....	Adams and York.....	Wm. M'Sherry, D....	Littlestown.....	1874
21th....	Bedford, Fulton, Blair and Somerset.....	John A. Lemon, R....	Hollidaysburg.....	1875
22th....	Centre, Juniata, Mifflin and Huntingdon.....	J. S. Wareham, D....	Lewistown.....	1876
23th....	Allegheny.....	J. S. Graham, R.....	Allegheny city.....	1874
		Geo. H. Anderson, R..	Pittsburg.....	1876
		M. S. Humphreys, R..	Pittsburg.....	1874
24th....	Indiana and Westmoreland.....	Harry White, R.....	Indiana.....	1874
25th....	Fayette and Greene....	W. H. Playford, D....	Uniontown.....	1875
26th....	Beaver, Butler & Washington.....	Jas. S. Rulan, R.....	Beaver.....	1875
27th....	Clarion, Armstrong, Jefferson and Forest.....	David Maclay, R.....	Curlsville.....	1875
28th....	Lawrence, Mercer and Venango.....	Samuel M'Kinley, R..	New Castle.....	1875
29th....	Crawford.....	Geo. K. Anderson, R..	Titusville.....	1876
30th....	Erie and Warren.....	Geo. H. Cutler, R....	Girard.....	1875

Republicans.....	20
Democrats.....	12
Liberal Republicans.....	1
Republican majority.....	<u>7</u>

MEMBERS OF THE HOUSE OF REPRESENTATIVES—SESSION 1874.

DISTRICT.	NAMES.	POST-OFFICE.
Philadelphia, 1st district.....	Geo. Handy Smith, R....	1514 South 5th street.
Do..... 2d “.....	John E. Kennedy, D.....	706 Federal st.
Do..... 3d “.....	Samuel Josepshs, D.....	330 Catharine st.
Do..... 4th “.....	Harry O'Neill, R.....	622 South 20th st.
Do..... 5th “.....	Jas. A. O'Brien, R.....	N.W. cor Front & Pine.
Do..... 6th “.....	Charles A. Porter, R.....	1209 Locust st.
Do..... 7th “.....	John M'Cullough, R.....	112 Kelton st.
Do..... 8th “.....	John E. Reyburn, R.....	1720 Green st.
Do..... 9th “.....	Wm. H. Vogdes, R.....	543 North 7th st.
Do..... 10th “.....	Albert Crawford, D.....	
Do..... 11th “.....	W. M. Worrall, R.....	2112 Master st.
Do..... 12th “.....	Joseph R. Ash, R.....	1130 North 3d st.
Do..... 13th “.....	John N. Wood, R.....	1119 Master st.
Do..... 14th “.....	W. J. Roney, R.....	Frank'd ab. Thomp'n.
Do..... 15th “.....	Robert Gillespie, R.....	2527 Lee st.
Do..... 16th “.....	J. Wm. Jones, R.....	Germantown.
Do..... 17th “.....	Charles B. Salter, R.....	Frankford.
Do..... 18th “.....	James Newell, R.....	4081 Hutton st.
Adams.....	Wm. S. Hildebrand, D.....	East Berlin.
Allegheny, Pittsburg, 1st district..	H. H. M'Cormick, R.....	89 Grant street.
Do..... 2d “.....	S. J. Wainright, R.....	Pittsburg.
Allegheny.....	John C. Newmyer, R.....	Pittsburg.
	A. B. Young, R.....	Pittsburg.
	A. C. Hayes, R.....	Birmingham.
	B. C. Christy, R.....	Pittsburg.
	Henry Gerwig, R.....	Allegheny City.
Armstrong.....	Robert Thompson, R.....	Orrsville.
Beaver, Butler and Washington...	Samuel J. Cross, R.....	Rochester.
	David M'Kee, R.....	Slippery Rock.
	A. L. Campbell, R.....	Eminton.
	J. A. Allison, R.....	Washington.
Bedford and Fulton.....	John M. Reynolds, D.....	Bedford.
Berks.....	Michael M'Cullough, D.....	Reading.
	Benjamin E. Dry, D.....	Drysville.
	A. Smith, D.....	Wernersville.
Blair.....	Seth R. M'Cune, R.....	Hollidaysburg.
Bradford.....	E. Reed Myer, R.....	Myersburg.
	James H. Webb, R.....	East Smithfield.
Bucks.....	George E. Hegeman, D.....	Sellersville.
	J. M. Jamison, D.....	Doylestown.
Cambria.....	Samuel Henry, R.....	Ebensburg.
Cameron, Elk and Jefferson.....	David P. Baird, D.....	Sterling Run.
Carbon and Monroe.....	William Kistler, D.....	Stroudsburg.
Centre.....	John H. Orvis, D.....	Bellefonte.
Chester.....	E. W. Bailey, R.....	Penningtonville.
	P. G. Carey, R.....	Phoenixville.
Clarion and Forest.....	M. Williams, D.....	Clarion.
Clearfield.....	J. W. Potter, D.....	Three Runs.
Clinton, Lycoming and Sullivan...	H. W. Petrikin, D.....	Muncy.
	R. Bedford, D.....	Campbellsville.
Columbia.....	Charles B. Brockway, D.,	Bloomsburg.
Crawford.....	Frederick Bates, R.....	Titusville.
	M. W. Oliver, R.....	Spring.
Cumberland.....	William B. Butler, D.....	Mt. Holly Springs.
Dauphin and Perry.....	J. E. Allen, R.....	Middletown.
	A. Fortenbaugh, R.....	Halifax.
	John H. Sheibley, R.....	New Bloomfield.
Delaware.....	Wm. Cooper Talley, D.....	Media.
Erie.....	E. H. Wilcox, R.....	Waterford.
	Henry Butterfield, R.....	Erie.
Fayette.....	J. M. Thompson, R.....	Uniontown.
Franklin.....	George W. Welsh, D.....	Chambersburg.
Greene.....	T. H. Laidley, Jr., D.....	Carmichaels.
Huntingdon.....	W. K. Burchinell, R.....	Huntingdon.

MEMBERS OF THE LEGISLATURE—CONTINUED.

DISTRICT.	NAMES.	POST-OFFICE.
Indiana.....	Daniel Ramey, R.....	Smitten.
Juniata and Mifflin.....	Jerome Hetrick, D.....	Mexico.
Lancaster.....	Amos H. Meylin, R.....	Lancaster.
	H. H. Tshudy, R.....	Litiz.
	J. S. Shuman, R.....	Columbia.
Lawrence.....	E. S. N. Morgan, R.....	New Castle.
Lebanon.....	Wm. M. Kaufman, R.....	Sheridan.
Lehigh.....	Robert Steckel, D.....	Allentown.
	James Kimmett, D.....	Catasauqua.
Luzerne.....	Thomas Waddell, R.....	Pittston.
	A. L. Cressler, D.....	Hazleton.
	T. W. Loftus, D.....	Olyphant.
	M. Crogan, D.....	Wilkesbarre.
Mercer.....	James H. Stranahan, D.....	Mercer.
Montgomery.....	Thomas G. Butler, D.....	Pottstown.
	Joseph B. Yerkes, D.....	Horsham.
Northampton.....	R. C. Pyle, D.....	Easton.
	Andrew Snyder, D.....	Upper Mt. Bethel.
Northumberland and Montour....	A. T. Dewitt, D.....	Snydertown.
	J. C. Amerman, D.....	Danville.
Pike and Wayne.....	Wm. H. Dimmick, D.....	Honesdale.
Potter and M'Kean.....	Charles S. Jones, R.....	Coudersport.
Schuylkill.....	Thomas Egan, D.....	Minersville.
	Jno. W. Morgan, R. and Labor Reformer.....	Shenandoah City.
Snyder and Union.....	Frederick S. Foster, D.....	Pottsville.
Somerset.....	Charles S. Wolfe, R.....	Lewisburg.
Susquehanna and Wyoming.....	J. R. M'Millen, R.....	New Lexington.
	Henry M. Jones, R.....	Harford.
	R. E. Little, D.....	Tunkhannock.
Tioga.....	James I. Mitchell, R.....	Wellsboro'.
Venango.....	R. D. M'Creary, R.....	Oil City.
Warren.....	George W. Allen, R.....	Warren.
Westmoreland.....	H. B. Piper, D.....	Greensburg.
	James L. Toner, D.....	New Derry.
York.....	George W. Heiges, D.....	York.
	D. M. Loucks, D.....	Windsor.
Republicans.....		57
Democrats.....		43
Republican majority.....		14

JUDICIARY.

The following tables give the names, terms, districts and salaries of all the law judges of the Commonwealth:

SUPREME COURT.

NAME.	TERM ENDS.	SALARY.
Daniel Agnew, Chief Justice.....	1878,	\$7,000
George Sharswood.....	1882,	7,000
Henry W. Williams.....	1884,	7,000
Ulysses Mercur.....	1887,	7,000
Isaac G. Gordon.....	1888,	7,000

MISCELLANEOUS.

DISTRICT COURTS.

NAME.	TERM ENDS.	DISTRICT.	SALARY.
J. I. Clark Hare, President.....	1878,	Philadelphia..	\$5,000
M. Russell Thayer, Associate.....	1878,	.....do.....	5,000
James Lynd, Associate.....	1880,	.....do.....	5,000
James T. Mitchell, Associate.....	1881,	.....do.....	5,000
Amos Briggs, Associate.....	1882,	.....do.....	5,000
Thomas Ewing, President.....	1883,	Allegheny....	5,000
John M. Kirkpatrick, Associate.....	1879,	.....do.....	5,000
J. W. F. White, Associate.....	1883,	.....do.....	5,000

COMMON PLEAS.

NAME.	Term ends.	DISTRICT.	Salary.
Joseph Allison, Prest. Judge,	1876,	1st. Philadelphia.....	\$5,000
William S. Pierce, Ass. J.....	1876,	do do.....	5,000
James R. Ludlow, A. J.....	1877,	do do.....	5,000
Edwin M. Paxson, A. J.....	1880,	do do.....	5,000
Thos. K. Finletter, A. J.....	1880,	do do.....	5,000
John B. Livingston, P. J.....	1881,	2d. Lancaster.....	4,000
Alex. L. Hays, Ass. J.....	1874,	do do.....	4,000
A. B. Longaker, P. J.....	1878,	3d. Northampton and Lehigh.....	4,000
Henry W. Williams, P. J.....	1882,	4th. Tioga, Potter, M'Kean & Cameron	4,000
Stephen F. Wilson, Add'l J.....	1882,	do do do do.....	4,000
James P. Sterrett, P. J.....	1882,	5th. Allegheny.....	5,000
Edwin H. Stowe, Ass. J.....	1882,	do do.....	5,000
Frederick H. Collier, Ass. J.,	1879,	do do.....	5,000
Lansing D. Wetmore, P. J.....	1880,	6th. Erie, Warren and Elk.....	4,000
John P. Vincent, Ass. J.....	1876,	do do do.....	4,000
Henry P. Ross, P. J.....	1881,	7th. Bucks and Montgomery.....	4,000
Richard Watson, Add'l J.....	1883,	do do do.....	4,000
Wm. M. Rockefeller, P. J.....	1881,	8th. Northumberland and Montour.....	4,000
Benj. F. Junkin, P. J.....	1881,	9th. Cumberland, Perry and Juniata.....	4,000
James A. Logan, P. J.....	1881,	10th. Westmorel'd, Indiana & Armstr'g,	4,000
Garrick M. Harding, P. J.....	1880,	11th. Luzerne.....	4,000
Edmund L. Dana, Ass. J.....	1877,	do do do.....	4,000
John J. Pearson, P. J.....	1881,	12th. Dauphin and Lebanon.....	5,000
Ferris B. Streeter, P. J.....	1875,	13th. Bradford and Susquehanna.....	4,000
Paul D. Morrow, Add'l J.....	1880,	do do do.....	4,000
Alpheus D. Willson, P. J.....	18—,	14th. Fayette and Greene.....	4,000
William Butler, P. J.....	1881,	15th. Chester and Delaware.....	4,000
Wm. M'Clay Hall, P. J.....	1881,	16th. Franklin, Bedford, Som'set, Fult'n,	4,000
D. Watson Rowe, Add'l J.....	1878,	do do do do.....	4,000
Lawrence L. M'Guffin, P. J.....	1874,	17th. Butler and Lawrence.....	4,000
Wm. P. Jenks, P. J.....	1881,	18th. Clarion, Jefferson and Forest.....	4,000
Robert J. Fisher, P. J.....	1881,	19th. York and Adams.....	4,000
Joseph C. Bucher, P. J.....	1881,	20th. Mifflin, Union and Snyder.....	4,000
Cyrus L. Pershing, P. J.....	1882,	21st. Schuylkill.....	4,000
Thomas H. Walker, Add'l J.,	1881,	do do.....	4,000
Sam'l H. Dreher, P. J.....	1880,	22d. Monroe, Wayne, Pike and Carbon,	4,000
Warren J. Woodward, P. J.....	1881,	23d. Berks.....	4,000
Jeremiah Hagenman, Add'l J	1879,	do do.....	4,000
John Dean, P. J.....	1881,	24th. Huntingdon, Blair and Cambria..	4,000
Charles A. Mayer, P. J.....	1878,	25th. Centre, Clinton and Clearfield....	4,000
William Elwell, P. J.....	1882,	26th. Columbia, Sullivan and Wyoming	4,000
Alexander Acheson, P. J.....	1876,	27th. Washington and Beaver.....	4,000
John Trunkey, P. J.....	1876,	28th. Mercer and Venango.....	4,000
James Gamble, P. J.....	1875,	29th. Lycoming.....	4,000
Walter H. Lowrie, P. J.....	1880,	30th. Crawford.....	4,000

Court of Criminal Jurisdiction.—David B. Green, P. J.; term ends, 1877; Dauphin, Lebanon and Schuylkill; salary, \$4,000.

District Court of Cambria county.—James Potts, P. J.; term ends, 1881; salary, \$1,800.

Amount appropriated for Associate Judges, not learned in the law, by act of 1873, \$50,000. Aggregate of salaries, \$264,800.

TABLE showing the Congressional Districts under the apportionment act of 1873; also the total population of each district in 1870, and the majorities at the elections held in 1871 and 1872.

Dist.	WARDS.	Maj. 1871.	Maj. 1872.	Pop. 1870.
1st ..	1st, 2d, 7th and 26th wards, Phila.....	*2, 355	*5, 224	124, 198
2d ..	8th 9th, 10th, 13th, 14th, 20th, and part of 17th ward west of Second street.....	*3, 257	*4, 672	†161, 468
3d ..	3d, 4th, 5th, 6th, 11th, 12th and 16th wards,	†4, 118	†1, 427	120, 073
4th ..	15th, 21st, 24th, 27th, 28th and 29th wards,	*3, 857	*4, 981	§113, 198
5th ..	18th, 19th, 22d, 23d, 25th, and part of 17th ward east of Second street.	*4, 316	*7, 022	†155, 085
6th ..	Chester and Delaware counties.....	*4, 853	*5, 036	117, 208
7th ..	Montgomery county, and all that portion of Bucks county not included in the Tenth district.	*840	*1, 296	127, 772
8th ..	Berks county.....	†5, 831	†6, 049	106, 701
9th ..	Lancaster county.....	*4, 095	*4, 710	121, 340
10th ..	Northampton and Lehigh counties, and the townships of Durham, Milford, Springfield, Richland, Rockhill, Hay- cock, Nockamixon and Tinicum, and the borough of Quakertown, in Bucks county.....	†5, 714	†6, 466	136, 404
11th ..	Columbia, Montour, Carbon, Monroe and Pike counties, and the townships of Nescopeck, Black Creek, Sugar Loaf, Butler, Hazel, Foster, Bear Creek, Bucks, Spring Brook, Roaring Brook, Salem, Hollenback, Huntingdon, and that part of the city of Scranton south of Roar- ing Brook creek, and east of the Lack- awanna river, and the boroughs of Dun- more, New Columbus, Goldsboro' White Haven, Jeddo and Hazleton.	†6, 153	†4, 318	134, 524
12th ..	All that part of Luzerne county not in- cluded in the Eleventh district.....	†261	†85	125, 443
13th ..	Schuylkill county.....	†1, 506	†398	116, 428
14th ..	Dauphin, Northumberland and Lebanon counties.....	*2, 827	*3, 739	136, 280
15th ..	Bradford, Susquehanna, Wayne and Wy- oming counties.....	*3, 288	*2, 798	138, 500
16th ..	Tioga, Potter, M'Kean, Cameron, Lycom- ing and Sullivan.....	*1, 916	*2, 938	113, 277
17th ..	Cambria, Bedford, Blair and Somerset...	*989	*1, 936	132, 481
18th ..	Franklin, Fulton, Juniata, Huntingdon, Snyder and Perry.....	*401	*939	14, 449
19th ..	York, Adams and Cumberland counties,	†2, 507	†2, 699	150, 361
20th ..	Union, Clinton, Clearfield, Elk, Mifflin and Centre.....	†2, 116	†2, 320	124, 931
21st ..	Westmoreland, Green and Fayette.....	†3, 756	†3, 226	127, 890
22d ..	Pittsburg city, and the townships of Char- tiers, Union, Scott, Stowe, Robinson, Upper and Lower St. Clair, Baldwin, Wilkins, Penn and Snowden, and the boroughs of Mansfield, Chartiers and Braddocks, in Allegheny county.	*1, 995	*3, 475	113, 075
23d ..	All that portion of Allegheny county not included in the Twenty-second district,	*1, 764	*5, 806	149, 128
24th ..	Washington, Beaver and Lawrence coun- ties.....	*1, 578	*2, 826	111, 929
25th ..	Clarion, Armstrong, Indiana, Forest and Jefferson counties.....	*1, 604	*2, 673	131, 723
26th ..	Mercer, Butler and Crawford counties....	*1, 982	*2, 078	150, 319
27th ..	Erie, Warren and Venango counties.....	*2, 393	*3, 695	137, 795

* Republican.

† Democratic.

‡ The 17th ward is all included in Fifth district, there being no means of arriving at the population of the divisions of the ward.

§ The Twenty-ninth ward is included in Second district, having been created from Twentieth ward, in that district, since 1870.

FULL OFFICIAL VOTE BY COUNTIES, ON THE CONSTITUTIONS OF 1838 AND 1873.

The official vote of the State complete is given below in detail, by counties. The vote in each county on the Constitution of 1838 is also given, the blanks indicating that the counties opposite have been formed out of others since 1838:

COUNTIES.	1873.		1838.	
	For.	Against.	For.	Against.
Adams.....	637	2,461	300	4,420
Allegheny.....	18,315	1,895	4,460	5,049
Armstrong.....	2,456	1,017	2,597	949
Beaver.....	3,037	1,159	2,525	1,612
Bedford.....	2,211	774	1,072	2,786
Berks.....	9,114	1,866	5,823	3,883
Blair.....	1,782	2,248		
Bradford.....	4,340	1,193	4,116	88
Bucks.....	4,445	2,935	4,095	3,362
Butler.....	3,377	496	2,383	712
Cambria.....	1,972	1,813	616	939
Cameron.....	419	50		
Carbon.....	1,747	699		
Centre.....	2,911	1,077	2,082	1,565
Chester.....	5,630	797	3,879	5,085
Clarion.....	2,287	945		
Clearfield.....	1,425	1,222	987	199
Clinton.....	2,374	161		
Columbia.....	2,308	784	1,556	1,506
Crawford.....	5,608	841	3,314	517
Cumberland.....	3,360	1,664	2,562	2,419
Dauphin.....	3,119	4,032	1,038	3,383
Delaware.....	1,866	797	1,299	1,459
Elk.....	592	229		
Erie.....	6,624	742	3,175	454
Fayette.....	2,727	883	3,022	1,145
Forest.....	330	18		
Franklin.....	2,904	1,275	1,723	3,315
Fulton.....	893	98		
Greene.....	988	1,864	2,399	74
Huntingdon.....	2,468	491	2,640	3,348
Indiana.....	1,599	3,152	1,248	1,471
Jefferson.....	1,396	912	593	356
Juniata.....	931	639	657	1,249
Lancaster.....	8,102	4,447	2,355	10,059
Lawrence.....	2,508	223		
Lebanon.....	1,576	1,849	807	2,573
Lehigh.....	3,672	1,897	1,792	2,244
Luzerne.....	5,689	2,501	3,606	1,141
Lycoming.....	3,814	1,747	1,913	1,477
McKean.....	1,093	64	301	2
Mercer.....	3,890	2,134	3,364	1,475
Mifflin.....	1,599	376	1,669	1,153
Monroe.....	1,640	381	1,248	200
Montgomery.....	6,354	2,959	3,690	4,079
Montour.....	1,065	154		
Northampton.....	3,245	2,581	1,641	3,577
Northumberland.....	3,170	1,621	867	2,144
Perry.....	1,491	1,916	1,216	1,418
Philadelphia.....	59,114	24,994	8,337	12,429
Pike.....	668	63	586	3
Potter.....	540	617	328	
Schuylkill.....	6,156	2,020	1,460	1,812

OFFICIAL VOTE ON CONSTITUTIONS OF 1838 AND 1873—CONTINUED.

COUNTIES.	1873.		1838.	
	For.	Against.	For.	Against.
Snyder.....	408	2,236		
Somerset.....	892	2,972	556	2,029
Sullivan.....	584	197		
Susquehanna.....	2,973	331	2,085	412
Tioga.....	2,561	1,910	1,974	16
Union.....	1,509	317	452	3,185
Venango.....	4,716	189	1,887	448
Warren.....	2,487	128	1,128	31
Washington.....	4,626	638	4,394	1,576
Wayne.....	1,560	257	1,380	99
Westmoreland.....	4,081	2,456	4,105	2,224
Wyoming.....	1,756	125		
York.....	4,514	3,091	1,233	5,500
Total.....	253,744	108,594	113,971	112,759
	108,594		112,759	
Majority.....	145,150		1,212	

VOTE ON PROHIBITORY LAW AND LOCAL OPTION.

The vote for and against license in 1873, compared with the vote on the prohibitory liquor law in 1854.

COUNTY.	PROHIBITORY LAW 1854.		LOCAL OPTION 1873.	
	For.	Against.	For.	Against.
Adams.....	1,126	2,584	613	
Allegheny.....	10,032	4,053	10,438	
Armstrong.....	2,232	1,711		750
Beaver.....	1,955	1,089		1,230
Bedford.....	1,252	2,361		156
Berks.....	2,612	10,599	8,229	
Blair.....	2,253	1,143		2,422
Bradford.....	4,352	1,672		2,246
Bucks.....	3,778	5,879	3,265	
Butler.....	2,301	2,299		699
Cambria.....	1,292	1,325	44	
Cameron.....				231
Carbon.....	658	1,072	1,141	
Centre.....	2,438	1,871		1,438
Chester.....	5,508	3,830		2,101
Clarion.....	2,148	1,567		990
Clearfield.....	1,235	872		480
Clinton.....	1,141	730		441
Columbia.....	1,037	1,938	740	
Crawford.....	2,994	2,135	524	
Cumberland.....	2,326	3,210		756
Dauphin.....	2,476	3,448	1,360	
Delaware.....	1,722	1,593		215
Elk.....	282	307	721	
Erie.....	2,767	1,501	759	
Fayette.....	3,493	1,407		2,079
Franklin.....	2,539	3,241		853
Fulton.....	426	832	273	

VOTE ON PROHIBITORY LAW AND LOCAL OPTION—CONTINUED.

COUNTY.	PROHIBITORY LAW 1854.		LOCAL OPTION, 1873.	
	For.	Against.	For.	Against.
Greene.....	1,188	1,782	2	1,300
Huntingdon.....	2,169	1,294		1,700
Indiana.....	2,368	1,338		948
Jefferson.....	1,385	1,015		962
Juniata.....	1,140	909		779
Lancaster.....	5,536	8,969	3,580	
Lawrence.....	2,359	737		1,697
Lebanon.....	1,091	2,774	2,573	
Lehigh.....	776	4,733	4,246	
Luzerne.....	4,283	3,265	1,473	
Lycoming.....	2,309	1,889		1,250
M'Kean.....	415	481		123
Mercer.....	2,985	1,846		977
Mifflin.....	1,398	382		878
Monroe.....	574	1,718	691	
Montgomery.....	3,819	5,789	4,206	
Montour.....	773	735		102
Northampton.....	1,411	5,093	4,824	
Northumberland.....	1,524	2,280	281	
Perry.....	1,297	1,939		579
Philadelphia.....	25,330	20,570		
Pike.....	242	458	341	
Potter.....	613	550		
Schuylkill.....	2,762	5,658	5,826	
Snyder.....			945	
Somerset.....	1,740	1,642		316
Susquehanna.....	2,640	1,525		1,842
Sullivan.....	299	340	164	
Tioga.....	2,041	1,576		1,200
Union.....	1,440	2,614		238
Venango.....	1,836	832		616
Warren.....	1,283	997		934
Washington.....	4,276	2,572		1,682
Wayne.....	1,603	868	331	
Westmoreland.....	3,346	3,236		724
Wyoming.....	1,191	339		1,437
York.....	2,336	5,904	1,894	

THE ELECTORAL VOTE OF PENNSYLVANIA FOR PRESIDENT AND VICE PRESIDENT OF THE UNITED STATES.

FIRST TERM.

March 4, 1789, to March 3, 1793. Number of electors, 10.

<i>President</i> —George Washington, of Virginia.....	10
John Adams, Massachusetts.....	8
John Hancock, Massachusetts.....	2
George Washington elected President, and John Adams, Vice President.	

SECOND TERM.

March 4, 1793, to March 3, 1797. Number of electors, 15.

<i>President</i> —George Washington, of Virginia.....	15
John Adams, Massachusetts.....	14
George Clinton, New York.....	1
George Washington and John Adams re-elected.	

THIRD TERM.

March 4, 1797, to March 3, 1801. Number of electors, 15.

<i>President</i> —John Adams, Massachusetts.....	14
Thomas Jefferson, Virginia.....	14
Thomas Pinckney, South Carolina.....	2
Aaron Burr, New York.....	13
John Adams elected President, and Thomas Jefferson, Vice President.	

FOURTH TERM.

March 4, 1801, to March 3, 1805. Number of electors, 15.

<i>President</i> —Thomas Jefferson, Virginia.....	8
Aaron Burr, New York.....	8
John Adams, Massachusetts.....	7
C. C. Pinckney, South Carolina.....	7

The vote for Thomas Jefferson and Aaron Burr being equal, no choice was made by the people. The House of Representatives proceeded to the choice of President, when Thomas Jefferson was elected President, and Aaron Burr, Vice President.

FIFTH TERM.

March 4, 1805, to March 3, 1809. Number of electors, 20.

<i>President</i> —Thomas Jefferson, Virginia.....	20
<i>Vice President</i> —George Clinton, New York.....	20

Previous to this election, two persons were voted for, the highest being President, the next Vice President. The Constitution was amended as it

now stands. Thomas Jefferson, re-elected President, and George Clinton, elected Vice President.

SIXTH TERM.

March 4, 1809, to March 3, 1813. Number of electors, 20.

President—James Madison, Virginia 20

Vice President—George Clinton, New York 20

James Madison, elected President, and George Clinton, re-elected Vice President.

SEVENTH TERM.

March 4, 1813, to March 3, 1817. Number of electors, 25.

President—James Madison, Virginia 25

Vice President—Elbridge Gerry, Massachusetts 25

James Madison, re-elected, and Elbridge Gerry, elected Vice President.

EIGHTH TERM.

March 4, 1817, to March 3, 1821. Number of electors, 25.

President—James Monroe, Virginia 25

Vice President—Daniel D. Tompkins, New York 25

James Monroe, elected President, and Daniel D. Tompkins, Vice President.

NINTH TERM.

March 4, 1821, to March 3, 1825. Number of electors, 25.

President—James Monroe, Virginia 24

Vice President—Daniel D. Tompkins, New York 24

James Monroe, re-elected President, and Daniel D. Tompkins, Vice President.

TENTH TERM.

March 4, 1825, to March 3, 1829. Number of electors, 28.

President—Andrew Jackson, Tennessee 28

Vice President—John C. Calhoun, South Carolina 28

Neither candidate for the Presidency having received a majority of the electoral votes, it devolved on the House of Representatives to choose from the three highest on the list voted for, who were Andrew Jackson, Tennessee, John Quincy Adams, Massachusetts, and Wm. H. Crawford, Georgia. John Quincy Adams was chosen.

John Quincy Adams, President, and John C. Calhoun, Vice President.

ELEVENTH TERM.

March 4, 1829, to March 3, 1833. Number of electors, 28.

President—Andrew Jackson, Tennessee 28

Vice President—John C. Calhoun, South Carolina 28

Andrew Jackson, elected President, and John C. Calhoun, re-elected Vice President.

TWELFTH TERM.

March 4, 1833, to March 3, 1837. Number of electors, 30.

<i>President</i> —Andrew Jackson, Tennessee	30
<i>Vice President</i> —William Wilkins, Pennsylvania	30

Andrew Jackson, re-elected President, and Martin Van Buren, New York, elected Vice President.

THIRTEENTH TERM.

March 4, 1837, to March 3, 1841. Number of electors, 30.

<i>President</i> —Martin Van Buren, New York	30
<i>Vice President</i> —Richard M. Johnson, Kentucky	30

Martin Van Buren, elected President, and Richard M. Johnson, Vice President.

FOURTEENTH TERM.

March 4, 1841, to March 3, 1845. Number of electors, 30.

<i>President</i> —William Henry Harrison, Ohio	30
<i>Vice President</i> —John Tyler, Virginia	30

William Henry Harrison, elected President, and John Tyler, Vice President. President Harrison died one month after his inauguration, when the Vice President assumed the executive functions.

FIFTEENTH TERM.

March 4, 1845, to March 3, 1849. Number of electors, 26.

<i>President</i> —James K. Polk, Tennessee	26
<i>Vice President</i> —George M. Dallas, Pennsylvania	26

James K. Polk, elected President, and George M. Dallas, Vice President.

SIXTEENTH TERM.

March 4, 1849, to March 3, 1853. Number of electors, 26.

<i>President</i> —Zachary Taylor, Louisiana	26
<i>Vice President</i> —Millard Fillmore, New York	26

Zachary Taylor, elected President, and Millard Fillmore, Vice President.

SEVENTEENTH TERM.

March 4, 1853, to March 3, 1857. Number of electors, 27.

<i>President</i> —Franklin Pierce, New Hampshire	27
<i>Vice President</i> —William R. King, Alabama	27

Franklin Pierce was elected President, and William R. King, Vice President.

MISCELLANEOUS.

EIGHTEENTH TERM.

March 4, 1857, to March 3, 1861. Number of electors, 27.

President—James Buchanan, Pennsylvania..... 27
Vice President—John C. Breckenridge, Kentucky..... 27

James Buchanan, elected President, and John C. Breckenridge, Vice President.

NINETEENTH TERM.

March 4, 1861, to March 3, 1865. Number of electors, 27.

President—Abraham Lincoln, Illinois 27
Vice President—Hannibal Hamlin, Maine..... 27

Abraham Lincoln, elected President, and Hannibal Hamlin, Vice President.

TWENTIETH TERM.

March 4, 1865, to March 3, 1869. Number of electors, 26.

President—Abraham Lincoln, Illinois 26
Vice President—Andrew Johnson, Tennessee..... 26

Abraham Lincoln, re-elected President, and Andrew Johnson, elected Vice President. President Lincoln having been assassinated, April 14, 1865, the Vice President assumed the executive functions.

TWENTY-FIRST TERM.

March 4, 1869, to March 3, 1873. Number of electors, 26.

President—Ulysses S. Grant, Illinois..... 26
Vice President—Schuyler Colfax, Indiana..... 26

Ulysses S. Grant, elected President, and Schuyler Colfax, Vice President.

TWENTY-SECOND TERM.

March 4, 1873, to March 3, 1877. Number of electors, 29.

President—Ulysses S. Grant, Illinois..... 29
Vice President—Henry Wilson, Massachusetts..... 29

Ulysses S. Grant, elected President, and Henry Wilson, Vice President.

LIST of United States Senators from Pennsylvania since the foundation of the Government, with their terms of service.

William Maclay.....	1789-1791	Isaac D. Barnard.....	1827-1831
Robert Morris.....	1789-1795	George Mifflin Dallas.....	1831-1833
Albert Gallatin	1793-1794	William Wilkins.....	1831-1834
James Ross.....	1794-1803	Samuel M'Kean.....	1835-1839
William Bingham.....	1795-1801	James Buchanan.....	1835-1845
George Logan.....	1801-1807	Daniel Sturgeon.....	1840-1851
Peter Muhlenberg.....	1801-.....	James Cooper.....	1849-1855
Samuel Maclay.....	1803-1808	Richard Brodhead.....	1851-1857
Andrew Gregg.....	1807-1813	William Bigler.....	1855-1861
Michael Leib.....	1808-1814	David Wilmot.....	1861-1863
Abner Leacock.....	1813-1819	Edgar Cowan.....	1861-1867
Jonathan Roberts.....	1814-1821	Charles R. Buckalew	1863-1869
Walter Lowrie.....	1819-1825	Simon Cameron, 1845-1849-1857-1861-1867	
William Findlay.....	1821-1827	1873-1873-1879.	
William Marks.....	1825-1831	John Scott	1869-1875

TABLE showing the companies organized under the act of April 14, 1868, relating to co-operative associations.

NAME.	LOCATION.	Capital stock.	Am't paid.	Certifi'e filed.
Co-operative Ass'n of Scranton, No. 1,	Scranton	\$20,000	\$1,000	June 15, 1868.
The Reading Manufacturing Co	Reading.....	20,000	20,000	Dec. 31, 1868.
The Union Co-operative association of Mahanoy City, No. 1	Mahanoy City,	20,000	2,000	Feb. 1, 1869.
The M. & B. Union engine company of Titusville	Titusville	20,000	3,200	Feb. 25, 1869.
The Mahanoy and Lehigh coal Co ...	Mahanoy	20,000	20,000	April 28, 1870.
The Stowers' pork packing and provision company.....	Scranton	100,000	10,000	June 3, 1870.
The Union Co-op. Ass'n of Hazleton,	Hazleton	20,000	2,535	July 6, 1870.
No. 1 Co-operative Ass. of Hazleton,	Hazleton	20,000	7,500	July 20, 1870.
The Titusville printing association...	Titusville	25,000	5,000	Sept. 30, 1870.
Carbondale Co-operative Ass'n, No. 1,	Carbondale ...	20,000	4,340	Nov. 7, 1870.
The Miners' and Laborers' Co-operative association, No. 1, of Jeddo ...	Hazle	20,000	6,840	Dec. 16, 1870.
The Co-operative iron and steel works of Danville, Pa	Danville	70,500	3,525	Jan. 13, 1871.
The East Lewisburg lumber and manufacturing company	E. Lewisburg,	25,000	21,000	Mar. 30, 1871.
C. Johnson, Jr., & Co	New Castle ...	20,000	2,000	May 1, 1871.
The Lehigh Hydraulic cement Co...	Allentown ...	50,000	1,500	June 24, 1871.
United K. O. S. C. Co-operative Shoe manufacturing company.....	Philadelphia..	20,000	3,000	Aug. 8, 1871.
The Philadelphia Co-operative Shoe manufacturing company.....	Philadelphia..	20,000	5,000	Dec. 19, 1871.
Beaver Falls Co-op. foundry associ'n,	Beaver Falls..	25,000	5,000	Feb. 13, 1872.
Union Co-operative Shoe manufacturing company	Philadelphia..	20,000	3,000	June 29, 1872.
The Taylorville Co-operative assoc'n,	Taylorville....	25,000	1,500	Feb. 11, 1873.

REPORT OF THE COMMISSIONERS OF THE SINKING FUND.

OFFICE OF THE COMMISSIONERS OF THE SINKING FUND, }
 TREASURY DEPARTMENT OF PENNSYLVANIA, }
 HARRISBURG, August 1, 1873. }

Balance in the Treasury July 31, 1873.....	\$1,583,479 53
Applicable to the payment of over due loans, relief notes and interest certificates	254,482 03
	<hr/> 1,328,997 50
Amount of registered loan, act of February 2, 1867, on which interest ceased July 31, 1873, and payable on de- mand.....	861,600 00
Amount of interest due and payable August 1, 1873.....	<hr/> 744,470 00 <hr/>

LOANS REDEEMED DURING MONTH OF JULY, 1873.

Five per cent. loan, per act of June 11, 1840, par.....	\$1,200 00
Six per cent. loan, per act of February 2, 1867, par, first series.....	208,650 00
Total.....	<hr/> 209,850 00 <hr/>

DEBT BEARING COIN INTEREST.

Four and one-half per cent. bonds.....	\$87,000 00
Five per cent. bonds.....	3,936,500 00
Six per cent. bonds	400,000 00
Total.....	<hr/> 4,423,500 00 <hr/>

DEBT BEARING INTEREST IN UNITED STATES CURRENCY.

Five per cent. bonds.....	\$907,200 00
Six per cent. bonds.....	20,465,750 00
Total.....	<hr/> 21,372,950 00 <hr/>

DEBT ON WHICH INTEREST HAS BEEN STOPPED.

Five per cent. bonds.....	\$137,021 97
Six per cent. bonds	21,211 06
Total.....	<hr/> 158,233 03 <hr/>

DEBT BEARING NO INTEREST.

Loan relief, act of May 4, 1841	\$96,249 00
Interest certificates, unclaimed	4,448 38
Domestic creditors	44 67
Total	<u>100,742 05</u>

CHAMBERSBURG CERTIFICATES, ACT OF MAY 27, 1871.

Six per cent. certificates, outstanding and unclaimed	<u>\$100,837 46</u>
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AGRICULTURAL COLLEGE LAND SCRIP FUND OF PENNSYLVANIA.

Six per cent. bonds, act of April 3, 1872	<u>\$500,000 00</u>
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RECAPITULATION OF THE PUBLIC DEBT.

Debt bearing coin interest	\$4,423,500 00
Debt bearing interest in United States currency	21,372,950 00
Debt on which interest has been stopped	158,233 03
Debt bearing no interest	100,742 05
Chambersburg certificates	100,837 46
Agricultural College Land Script Fund of Pennsylvania ..	500,000 00
Total debt July 31, 1873	<u>26,656,262 54</u>

WEIGHTS AND MEASURES.

Some of which are regulated by statute, and others by custom.

	Pounds per bushel.
Foreign salt, coarse,*	85
Unslacked lime	80
Bituminous coal	76
Corn in ear, Foreign salt, ground,* } each	70
Clover seed,* Foreign salt, fine,* } each	62
Wheat,* Peas, White Beans, } each	60
Onions	57
Irish potatoes,* Shelled corn,* Rye,* Flax seed, } each	56
Sweet potatoes, Turnips, } each	55
Corn meal	50
Buckwheat *	48
Barley	47
Castor beans	46
Timothy seed	45
Blue grass seed, Hemp seed, } each	44
Coke,*	40
Malt.	38
Dried peaches	33
Oats,*	30
Dried apples, Ground peas, } each	24
Bran	20
Plastering hair	8

	Cubic inches per bushel.
Bituminous coal,*	2,688
Coke,*	2,680
Charcoal,*	2,571

*Regulated by statute.

PART II.

REPORT ON LABOR.

REPORT ON LABOR.

INTRODUCTORY REMARKS.

When the present organization of this Bureau was effected, little or no material was found in its office on the subject of labor. The former commissioner, in the fraction of a year in which he occupied the office, had prepared, after careful and exhaustive inquiry and study of the subject, suitable blanks for the collection of information. Of these he had large quantities printed, considerable numbers of which were sent out; but, owing to the very defective character of the act creating the Bureau, there being in it no provision conferring authority to compel answers, few or no returns were made. A large amount of information had been collected by him through personal application and observation, but this being committed only to rough notes could not be made available by the new administration. The Governor in his annual message very strongly urged the additional legislation necessary to make the work of the Bureau effective, and it was hoped and believed that it would be had, but the adjournment was reached without anything being done in that direction. As a consequence, such matter as has been collected on this subject has been the voluntary offering of those who could be reached with the very scanty means at the disposal of the Bureau, whose interest in it has been sufficient to impel them to do what they could to aid its investigations. It is gratifying to know, so far as inquiries have extended, that a large proportion of the people feel interested in the proposed work of the Bureau, and appreciate fully its possible value, if properly conducted and efficiently sustained in this important field of research.

The enormous losses to the general production of the State, the financial suffering and disappointments (not unfrequently resulting in bankruptcy) of employers, the bitter enmities, discontent, poverty and demoralization of workmen, and the distress and degradation of their families, consequent upon the often recurring strikes and conflicts between employer and employed, would seem to indicate that some means should be taken to bring about a better understanding of the needs, rights and mutual relations of the two classes into which the great and increasing activities of the age

are rapidly dividing the productive population of the country. More especially since, in the contests between the two, great injustice is frequently done by each to the other, in the anger and heat and personal antipathies engendered in the mutual effort for mastery. The interest of the whole people is too great in the steadiness, evenness and uninterruptedness of our productive progress, to make it wise or just that it should be at the mercy of factiously contending interests. While the axiom is probably true in its legitimate sense that "commerce between citizens should be free and untrammelled," and that "the best legislation is the least," yet it is none the less true that the rights and interests of all the people in the general prosperity and progress may not be justly left at the mercy of the ignorant, or vicious, or reckless, or grasping contentions of a portion; and when these contentions assume the proportions of revolutionary agitation, involving our greatest and most important industries, dictating to great communities prosperity or adversity, and even threatening the permanency of our political system, the right and duty of the Legislature to interfere to secure the rights of all by composing the differences or compelling the practice of justice by laws adapted to the end in view, cannot be questioned. For years all the great industrial operations of the State have been disturbed by frequently recurring contests between employers and employed, to the serious detriment of the general good, and have gradually assumed such huge proportions as to create a general impression among thinking people that some serious defect exists in the relations of capital and labor. If the trouble is without reasonable cause, and, as is often asserted, merely the work of visionary and mischievous demagogues, it is to be noted that they have achieved unprecedented success. If, on the contrary, as is equally often asserted, it is the result of real grievances and oppressions, growing out of legislation induced by the general eagerness to promote material progress, and the resultant aggregation of enormous capital and power in few hands, individual and corporate, in either event it is the duty of the Legislature to guard the rights of the people; and the multiplicity of contradictory statements from one side and the other makes it necessary that some measure should be adopted to bring to its knowledge and that of the people the real facts, in order that it may act, not in the dark or in the uncertain light of interested and unsupported assertion, but of the truth, authoritatively ascertained and distinctly stated. To ascertain the facts by systematic inquiry, and present them, properly collated and succinctly stated, would seem, from all the facts connected with the origin of the Bureau, to be its province and its duty, and with this understanding it commenced its labors in this branch of its inquiries. But just here it has confronted at least five imposing obstacles:

First. Lack of comprehension (through inexperience) of the work to be done, and the best method to adopt in its prosecution.

Second. The imperfect character of the legislation under which the Bureau is organized, in the lack of authority given for effective prosecution of its work.

Third. The prejudice among employers against what seems to many of them to be unwarrantable espionage into their affairs and interference between them and their workmen.

Fourth. The indisposition on the part of workmen to give information or trust the sincerity of purpose that inspires the inquiry.

Fifth. The paucity of the means at the disposal of the Bureau.

The first of these obstacles only remains such for the time required to give the necessary thought to the subject, and is only important in reference to the time consumed in removing it, by studying the subject in the light of precedents established by the efforts of numerous large-hearted and clear-headed benefactors of their kind, who as a labor of love have spent themselves from time to time in these labors in the hope of adding to the sum of human happiness. In this connection mention must also be conspicuously made of the reports of the Commissioners of the "Bureau of Statistics of Labor" of Massachusetts, called to their work through causes substantially the same as ours, but preceding us by four years in time, and endowed by the Legislature with power and means approximately adequate to its performance, they have, in their three modest but most industriously collected, ably analyzed, and impartially and conscientiously stated reports, accomplished a work that must add to their honor the more widely they are known and read, and that should be in the hands of every business man, legislator and student of political and social economy.

The second of the obstacles referred to, is one, the removal of which rests entirely with the Legislature. If, as is fully believed, (and in a great degree proved by the Massachusetts precedent,) such a work can be made available in the improvement of legislation by demonstrating where the weak places are in our social and political systems; and if a just regard for the rights and interests of all our people require, (as it assuredly does) that such information shall be sought, collated, and kept in convenient form for general reference; and, again, if it is probable, (as past experience shows it is,) that reference to such archives of authoritatively collected and faithfully stated facts may prevent in the future some disastrous blunder in legislation, or cruel tyranny in enterprise; the fatuity of the neglect to provide it, through parsimony in expenditure, or cowardly, or reckless indisposition to look beneath the surface and see what is really there, can hardly be measured in words.

The third obstacle arises partly from the second and partly from unthinking, perhaps unconscious, adhesion to old, accustomed ideas and habits of thought—indignant irritability, growing out of the frequent strikes among workmen, and consequent conflicts and losses, together with a sentiment, (that inquiry shows yet to prevail to an astonishing degree,) that the possession of capital, and the handling of it, gives to the holder some indefinable access of dignity and right of control over him whose only capital is in his brains or sinews, and the fear of anything that threatens innovation upon the existing order of things, as calculated to destroy this inequality, or, (in the language usually used to express it,) “destroy all discipline among workmen.” It is apprehended that, in this craving for mastership, which is not peculiar to any individual, but common to all mankind, and the outgrowth of, or rather sediment left by, the old, effete, theoretically discarded, but too often practically retained doctrines, of the divine right of the strong to rule, is to be found the cause of much of the oppression on the one hand, and resistance on the other, that leads to the conflicts so much to be deplored. The capitalist operator who controls one or two hundred thousand dollars, and in the prosecution of his enterprise employs five hundred men at wages, is doubtless performing the functions of a valuable citizen, in using his means and business energies to add to the volume of the general wealth. He unquestionably deserves, and should receive, such legislative protection and encouragement as will secure his investment and compensate his efforts. But what of the five hundred of his neighbors who, having no capital but their sinews, join that to his money to make it available? Are they to go for nothing in the estimate of general, social and political values? Are they any the less citizens of the State? Is there anything in their position in the social or political system that should degrade them; or is their honest toil in their employment in itself a degradation? Are they not, in their sphere, as fully, as valuably, and *as honorably* performing the functions of valuable citizens as the other? What reason, then, is there in ethics or sound policy why they may not approach the Legislature and ask such protection as they think is needful and just? And why may not the Legislature—if their statement shows one state of facts and that of their opponents another—take measures, by the institution of a Bureau like this, to ascertain where the truth lies between these contradictions?

Capital comes to the Legislature and asks that charters shall be granted vesting special privileges in corporations; conferring on them powers and franchises that individual citizens alone may enjoy. The ground upon which such privileges are asked and granted is the development of the wealth and resources of the State. These aggregations of capital stimulate all productive activities, and their very success intensifies industrial

vigor. The little one-horse work-shop of the past is too slow for the seething, surging activities of the present, and capital again applies to the Legislature for the incorporation of mining and manufacturing companies, and the place of the little shop at the corner of the street or the cross-road, is occupied by the grand manufactory, glowing with the flame of its hundred forges and roaring with the clash and turmoil of its thousand workmen. Now, does he, who to-day in that grand factory, working for wages, represent the small operator of yesterday in the two-benched or one-forged shop at the cross-road, change his status by becoming, in the new order of things, a wage worker? Is he any the less the citizen, the man, rightly the sharer in all the grandeur of the progress his labor helps to promote? And when he comes to the Legislature and claims that of all the enormous growth of wealth that is produced year by year, he gets less and less; that, as the aggregation of capital progresses, the numbers of his class increase, and in proportion to that increase the pressure upon them becomes heavier; that their attempts to organize to secure their share of the benefits of this progress, are met with charges of conspiracy; of brutal violence; of agrarian murders; that the great supplies of natural wealth that God has stored for the blessing of our age, are being unduly wrested from the many by the few; and asks that, in the exercise of its functions as conservator of the rights of all, it shall institute inquiry into the condition of affairs for the public good; should he be turned away with a cold negative, or a misleading, deceptive promise of acquiescence? There can be but one answer to each of these questions.

While any interference in the private business affairs of employers, of a character that would give color to the charge of espionage, as, for instance, requiring answers to a series of questions that would show, or could show, or make known to the public, or individuals, the profits of their business, or expose any secret of their trade, that is necessary to their success; bring to the light of popular or unfriendly criticism the condition of their bank accounts or amount of their wealth, would certainly be unwarrantable, and beyond the sphere of justifiable legislative inquiry; yet, as the very breath of the life of their enterprise depends upon the protective care of the government, as they are only integers in the great mass of the body, social and politic, that the Legislature is instituted to conserve, as the wage workers, whose co-operation by their labor with capital and intelligence, is necessary to the production of industrial results—are equal integers of that body—are no part of their bank accounts, no part of the private or secret machinery of their trade, and no part of their net profits; but equals before the law, and equally entitled to consideration by the Legislature, in determining the encouragement and protection that shall be given to all, for the promotion of the good of all; it is certainly difficult to find any just

or well founded objection to the answering of such questions as are necessary to determine their actual condition, and how they have been and are being affected by legislation intended to advance the general interests.

There is another consideration beside that of mere abstract right that ought to command the acquiescence of employers in the purposes of this inquiry. It is to be assumed that they intend as a class to deal justly. It will indeed be a dark day in our history, when it is demonstrated that so large, so powerful, so enterprising a portion of the citizens of the State, shrink from impartial inquiry into a subject of such momentous consequence. If the relations of labor to capital are as they should be, the inquiry proposed will demonstrate it. If they are not, that will be shown, and the light of truth thrown upon the question will show the way to such ameliorations as will secure our progress from interruption. As the success of industrial enterprise depends largely upon its security from unlooked for disturbance, whatever tends to prevent disturbance, can be no other than beneficent in its effect. All the facts carefully collected from year to year, and honestly presented, by removing the uncertainty as to what is true, which is the opportunity of the demagogue, and promoting that clear conception of the right which must develope mutual confidence and kindly feeling, can do no other than result in incalculable good. It is earnestly hoped and confidently believed, than when the object sought to be attained through the instrumentality of the Bureau is more generally understood, this obstacle will be measurably removed.

The fourth obstacle is as unreasonable, but according to the usual estimate of the relative intelligence of the employer and employed should be held as far more excusable. There seems to be a general unbelief among the workmen as to the sincerity of the legislation establishing the Bureau, and nothing, apparently, but the publication of a report that will demonstrate its value, will remove the impression that the ineffectiveness of the bill was purposely contrived, to give the impression that their demand for a Bureau of Labor Statistics was being complied with; while, at the same time, care was being taken that no practically useful results should follow its creation. When pressed, for instance, to give answers to questions propounded for the purpose of fixing the comparison between actual average earnings and average cost of living, the reply has sometimes been, with a tone of bitterness and suspicion—"yes, you want to find out just how poor we are; how little we can live on, and use it, either to further reduce wages, or prove the degradation of the working classes, that so much is said and written about;" or, "how do I know that the answers I give you may not lead to my discharge? If there was an honest purpose to make an investigation that should secure a needed reformation, why did

not your law give you power to send for persons and papers, subpoena witnesses, and compel answers? Then, it would have looked as though your inquiries meant business. We could have been called to give testimony, subject to cross-examination, and it would not have the effect of *ex parte* evidence, or be open to the charge of voluntary information without the force of evidence, unavailing for any good purpose, and leaving us open to the charge of seeking the injury of our employers by making factions, fault-finding statements, calculated to lead to interruption of business by exciting turbulent agitation." Upon being reminded that the Bureau was created in answer to their petition, and for the purpose of bringing out the truth, they reply: "All that can be readily demonstrated by giving the inquiry the force of law, and then no individual would be open to the charge, or liable to the penalty of opposing the interests of his employer. Our statements voluntarily given have always been disputed, our efforts to agitate the importance of organization for mutual support and protection, have always been called conspiracy and agrarianism. Our right to organize has been called in question, and the whole power of capital has been exerted to break down attempts in that direction, even to the extent of prosecutions for conspiracy, which, in at least one instance, resulted in imprisonment, and even when the great numbers, intelligent leadership, and resolute fortitude of our people have given us partial success, the privations and sufferings consequent on the effort serve to warn off and debar others from like attempts. If the Legislature really desires the righting of any wrong that may exist; if, to this end, it really desires to get at the facts, there is a plain and simple way to reach them, and there is no reason for enacting laws for any other of the general purposes of legislation that will not apply with equal force to this." The means for the removal of this obstacle needs no further discussion.

The fifth obstacle noted is similar in its effects and in its remedy to the three preceding. The Bureau as at first organized had provision for the chief and one clerk. Its work, in addition to this of labor statistics, included the collecting and arranging of statistics of the State, of interest in all its multifarious industries and activities, the Legislature at its last session, while it failed to adopt any measure to increase its legal power for usefulness, provided in the appropriation bill for three clerks in addition to the commissioner. The appropriations being as follows, viz:

For the commissioner for salary	\$2,500 00
For three clerks at \$1,400 00	4,200 00
For messenger	200 00
For stationery	250 00
For traveling expenses	350 00
Total	<u>7,000 00</u>

This shows an appropriation for all expenses other than salaries of six hundred dollars. When the amount and character of the work committed to the Bureau is comprehended (if it ever is) the extreme inadequacy of this appropriation will be startlingly manifest; and when, likewise, the value in usefulness of such a work, properly sustained and thoroughly executed, the arrangement and tabularization of all the stupendous industries of the State, its vast developed and undeveloped mineral and other resources set forth in clear, orderly and authoritative tables, with the progress made, noted from year to year, giving the best and safest information for, and the most persuasive invitation to, investors of capital at home and abroad, is comprehended (if it ever is;) and when, again, the value of the work as a guide to legislation, securing our lawgivers against errors and blunders in that direction by furnishing them with the light of real facts and sure knowledge, that no chicanery, misrepresentation or conspiracy can befog or darken, is comprehended (if it ever is;) the unwisdom of such inadequate appropriations, where the investment is so certain to give such large returns for the outlay, will be so manifest that its repetition will be impossible.

According to the report of the "Bureau of Labor Statistics of Massachusetts" for the year 1871, the amount authorized and used by that Bureau for the previous year (exclusive of salaries) was five thousand dollars. This was for traveling expenses, printing, postage and expressage, witness fees, stationery, assistants and their travel, &c. There are a few facts to be taken into consideration in treating of the comparison between our organization and theirs:

First. The Massachusetts Bureau was exclusively of labor statistics, thus being charged with certainly less than half the work of research committed to ours, supposing all other conditions to have been equal.

Second. The area of the State of Pennsylvania is 46,000 square miles; that of Massachusetts is 7,800 square miles, which gives to Pennsylvania nearly six times the area of Massachusetts.

Third. The population of Pennsylvania in 1870 is given in the United States census as 3,521,951, while that of Massachusetts is 1,457,851, which gives to our State over two and a half times the population of the latter.

Fourth. In the matter of the diversity of industrial employments that assume gigantic importance, there is no room for comparison between the two.

In the light of these facts, the determination of Massachusetts to have her work *really* done, as evinced in the provision made for *doing* it, is in very startling and not flattering contrast to ours. These reflections are noted without, of course, any spirit of unkindly criticism, but for the purpose of presenting, in as strong a light as possible, the needs of the

work, and the very powerful reasons why they should be supplied. The material presented in this report, being the result of an earnest desire to fully perform the work imposed upon the Bureau to the extent of the power and means furnished, will, necessarily, be more valuable as suggestive of what may and ought to be done than for what is actually accomplished. Any other than a mere approximation to real results being, under the circumstances, for this year, impossible.

The object of the investigations made on this subject of labor has been to ascertain the amount of wages paid in the leading industries. The actual average cost of the living of the average workman's family—the real condition as to prosperity and contentment of the average workman, and the progress he has made in social, educational and material standing, as compared with other portions of the community of to-day and with the workman of the past. To accomplish this, large numbers of the blanks prepared for the purpose were sent out to workmen, very few returns to which have been made. It was early ascertained that without further legislation the work in that direction must prove a failure, and the plan was adopted for this year of using the census return of 1870, and compiling from that, with the aid of such information as could be obtained, tables showing the actual average earnings for that year. Inasmuch as written or printed communications were generally neglected, the information was sought by personal application and observation. The tables of general industries furnish their own evidence of approximate correctness. As the demand for the creation of the Bureau came immediately from the anthracite coal fields, especial attention has been given to the history of the labor troubles there, and as the facilities for obtaining the facts were reasonably full, it is believed that the statement given is substantially correct, and will be found interesting, as it is surely instructive.

THE LABOR TROUBLES IN THE ANTHRACITE REGION.

SCHUYLKILL COUNTY.

FLUCTUATING CHARACTER OF THE TRADE AND THE CAUSES.

The mining of anthracite coal has been attended from the first with more constantly recurring vicissitudes than any of the other great industries of the State. Probably for the simple reason that it *was mining*, and that so much of success or disaster depended upon good or ill fortune in the selection of sites for its prosecution, its progress and development has been attended through all its history by a spirit of speculation; that, while it may be said not to have been general, or a characteristic of the trade, was yet of sufficient volume and force to affect seriously its character. All that was necessary to insure a period of over-production, was that some one or more of those engaged in it should be so exceptionally fortunate as to have opened a very pure vein, and having judiciously made his improvements, succeed in making money rapidly. At once, the enormous fortunes made in coal mining would be the prevailing topic in speculative circles, and leases would be taken, new operations opened, and production run up until the price of coal would not cover the expense of putting it in the cars, and so continue until the pressure of low prices would gradually drive the weaker (financially) of the operators out of the business, when demand would again outgrow production, and again the tide of speculation would flow in, to repeat the history of over-production and disaster, again and again.

It is believed that this trade has been afflicted in this way more than others, partly, also, for the reason that there was an impression, quite general, that it required no especial knowledge of the business to be a miner. Any one could mine coal and make money who had money to put into it while to manufacture iron, or successfully to pursue any other industry, required some preparatory, practical, educational knowledge and experience. That this condition of things has had the effect of keeping the trade in a constant state of disarrangement and fluctuation is undoubtedly true. That it has embarrassed and caused loss, and very serious loss, to those whose experience and education made them legitimately coal miners is also

true. But the greatest, most wide-spread and long-abiding of its mischievous influences has been in the effect it has produced upon that most numerous and most interested, because most dependent, class in trade, the wage-workers.

THE BEGINNING OF THE TROUBLE.

The beginning of anthracite coal mining was comparatively very small, and did not in a very marked degree affect the character or density of the population. But when the first speculative movement took place it created at once such a demand for labor, and offered such inducements in the way of wages as to attract from other occupations, and from other countries, large bodies of the poorer wage-working class, who came to the region, not as the speculator did, on the blind chance of profit as the gambler might throw his dice, but on the definite promise given in the offer of greater earnings than they could obtain elsewhere. Very soon the promise of such improvement in condition would be broken by glutting the market by over-production, and the laborer would find himself in the same, or a worse, condition than that which he had left. Then would follow a season of privation and suffering from inadequate wages, that would be borne with various degrees of patience or impatience; some leaving and seeking employ elsewhere; some, too poor to change, struggling on, and floundering deeper and deeper in the mire of hopeless poverty and its consequent degradation, while others of the more reckless, vicious and turbulent, would engage in the various violations of good order and law that distinguish men of like character everywhere. Again decreased production, and perhaps some new application of its usefulness would advance the price of coal, and again speculation would increase production beyond the needs of the trade; at the same time increasing the wage-working population as before, to be followed by the same re-action, attended with the same demoralization, poverty, suffering and degradation, varied only as period followed period of inflation and depression, by the steadily increasing numbers of the wage-working population, consequent upon the growing volume of the business. The period covered by the passage from highest to lowest prices, in these fluctuations, is said to have been, with singular regularity, about seven years. The last (say three or four) of these seven years would be those during which the greatest privation and suffering would exist. The remainder would be consumed in running prices up, increasing production, reaching and passing the capacity for consumption, and beginning the process of depression.

STYLE OF WORKMEN'S RESIDENCES.

The effect of this process upon the working population can be very readily understood. Under the influence of high prices, and the opening of new operations, the demand for workmen would lead to the building of

what are called company houses for their accommodation. These were usually built in blocks of two houses, varying from two to four rooms each, and set in rows among the stumps and rocks, forming a single street of forty to one hundred houses, according to the extent of the proposed operation. As soon as they were closed in they would be occupied, and the cleaning up of the grounds, building of out-house conveniences, removal of stumps from the street, &c., in fact, everything of an *æsthetic* character, would be left until the hurry of opening would be over, and the expected great profits would warrant the expenditure. In the meantime, not unfrequently, these four-room houses would accommodate boarders, two, four, and sometimes more, beside the family. Very few of them would have cellars, in rare instances privies; all crowded with workers living in this untidy, demoralizing manner, in expectation of the improvement, time, and the success of the operation was to bring. In very few instances were these improvements ever realized. In a few months prices would recede, and the operator reduced to the adoption of every possible expedient to reduce cost would give no further attention to the conditions under which his workmen lived; while they, with their families crowded, men, women and children, always in unseemly, often in indecent propinquity, would reap the natural harvest of such sowing, and grow down to the character of their surroundings.

To this day, any one taking the trouble to pass through the county may witness the truth of the above picture, by seeing in large numbers just such residences as described above.

The effect of this style of habitation, and of such surroundings, could not possibly be improving to the general character of the people affected by it, and when there was added to these influences, low wages, and consequent deprivation, that effect was doubly demoralizing.

SEPARATION INTO CLASSES, AND CONSEQUENT DEMORALIZATION.

As the mass of the working class sank under such influences to deeper poverty, hopelessness and degradation, the line dividing them from the employing class, and their better paid and provided confidential servants as superintendents, store keepers, clerks, &c., was widened day by day, until they were as completely separated in feeling, habit of thought, purposes, interest and sympathy as if they were separate peoples in race and civilization.

Nothing, under such circumstances, could be surer, than that all who were already depraved would continue so, and those whose prior lives and surroundings would incline them to seek improvement, (or preserve what they had,) in character and culture, would labor under adverse influences, peculiarly calculated to repress all such aspirations, and crowd them down

to a common level of hopeless depravity, poverty steeped in ignorance, and blind, unreasoning turbulence. To a deplorable extent all this did result; not, however, to the degree that has been charged; for large numbers of the mining population have proved to be as thoughtful, provident and self-respecting as any other class of our citizens. Yet, while such influences operated so powerfully for the repression of all aspirations for improvement, the turbulent and vicious portion of the population *did* stamp its character upon the *reputation* of the whole; being bolder, more forceful and aggressive; and for a long time the county was disgraced by the perpetration of crimes of every kind.

THE DOMINATION OF THE TURBULENT WIDENS THE BREACH.

The perpetrators were so bold and numerous, and the better classes so divided and powerless, that they were completely over-ruled, and without influence for good; while the operator class, residing generally in the cities, and always as widely separated from them socially, as if they were a separate people, looked upon the acts of the desperadoes as the acts of the whole, and regarded the entire working population as incurably turbulent, worthless and dangerous. Thus, the character of the people suffered in the public estimation, and the contemptuous regard in which they were generally held by those whose relations to them should have influenced good offices in their behalf, only intensified the horror of the situation and widened the breach.

The consequence was that in the fluctuations of the trade, those differences as to wages, &c., that in all industries should be settled by amicable discussion of the situation, would in this take the character of a conflict of interests, in which no friendly sympathies existed on either side, attended by isolated strikes, first at one colliery, and then at another, accompanied by passionate recriminations and violent revenges on the part of the more turbulent of the defeated party, which, in their isolated condition, unorganized and unconsidered as they were, was nearly always the workmen, resulting in a prevailing sense of peril and insecurity, for which all would be as a class held responsible, and suffer, as a consequence, the loss of public sympathy, through the intensity of public detestation. The effect of these causes was to give the more turbulent a powerful influence in the region, and proportionately to weaken the influence of the orderly and well-conducted majority. At the same time, low wages and poverty destroyed the self-respect of the individual, and led to exasperating competition between workmen, in which each would strive to underbid the other for choice of work, thus reducing still further the already small chances for paying employment. This practice, as it became more general, added fuel to the flame of discord, and intensified still further the bitterness of the situation.

Thus, the close of one of these periods of seven years, in 1857, found the trade in the county, so far as the interests of the workmen were involved, in probably the worst condition that had ever been known. In that year, the average wages of men, miners and laborers, have been stated at one dollar per day. Common laborers, heads of families, varied from four to five dollars per week; miners, from six to eight. Ten dollars per week, earned by a contract, or piece-working miner, was regarded as very exceptionally high wages.

ADDITIONAL CAUSES OF DEMORALIZATION AND THE CONSEQUENCES.

This condition of things lasted, with occasional unimportant fluctuations, until in 1862 and 1863. The general inflation of values created by the war, the drainage of hands by volunteering in the army, and the increased demand for coal by the government, caused a period of unprecedented activity and high wages in the anthracite regions. Very large numbers of the better class of workmen were in the army—while the demand for workmen and high wages paid attracted large numbers new to the region, and often of vicious and turbulent antecedents; this, added to the excitements of conflicting political opinions and prejudices, intensified by the war; the furious, almost revolutionary, denunciations of the policy of the national administration indulged in by leading politicians—pronouncing the drafts illegal, and in some instances, even advising resistance; acting upon a population demoralized by long years of cruel poverty, drained of its best elements by demands on its patriotism, and the vacuum caused by the drain, filled by the influx of the worst elements of the great cities—produced a pandemonium of outrage, violence and anarchy, utter disregard of the sanctity of law, and of immunity through its lax enforcement, such as has never been known before in Pennsylvania, and seldom in the nation. The long train of murders and attempted murders, of horrible beatings, of outrages by waylaying, of robberies and attempted robberies, none of them prosecuted to conviction, and which, by prejudiced representation, were made to give their coloring to the character of the whole working population, constituted a reign of horrors never to be forgotten or thought of without a shudder by those who lived through them. Under the impulse of the unprecedented demand for coal, production was rapidly and largely increased and brought about the usual result, and in September, 1867, wages had fallen to a rate even lower than that of 1857, when the difference in the cost of living between the two years is taken into consideration. To illustrate this statement, at one colliery a man who was a very trustworthy, intelligent and experienced workman, and who was said by the superintendent to be the best outside laborer he had ever known, who was the car loader at the breaker—occupation requiring carefulness and intelligence—

to prevent accident and loss of property, which work is now paid for at from \$11 to \$13 per week, was paid in that month (September, 1867,) \$7 60 per week. This was the highest price paid that month at that colliery for outside labor, and the rates varied from that all the way down to \$4 50, with boys in the breaker from \$1 50 to \$2 50 per week. From the best data attainable, \$50 per month would be a high rate at which to average the earnings of skilled miners working by contract.

The perpetration of outrages still continued. At one time, a superintendent murdered; at another, a boss; again, an attempt to rob a paymaster; and, again, a farmer carrying produce, robbed and beaten.

MEASURES ADOPTED (BUT FAILING) TO VINDICATE THE LAW.

Extraordinary measures had been adopted to effect a stoppage of the carnival of crime. By act of the Legislature a special criminal court had been created, but considerations of political advantages to be gained by catering to the spirit of lawlessness led to such opposition to its establishment, by factious litigation, that it was not available for years. A county police force, appointed by the Governor, was authorized; but the impossibility of securing convictions, when arrests were effected, neutralized its usefulness, and it looked as though Schuylkill county must be given over to the control of the worst elements it contained. Under these circumstances the outlook for the people of the county was gloomy enough. The cost of the necessities of life still high; wages very low and prospects of going still lower; man arrayed against man by their mutual necessities, underbidding each other for work; contentions between rival factions, making it as unsafe for workmen, if not more so, as for others; angry and bitter contests with employers, with the fault as often on one side as the other, and not seldom on both, that had no effect except to increase the bitterness of the strife and hopelessness of the situation.

FIRST MOVEMENT FOR ORGANIZING THE WORKMEN.

It was at this time and under these circumstances that some of the more intelligent and thoughtful of the workmen made the first effort to give effect to a project that had been for some time privately discussed, viz: to contrive an organization that, while it should avoid the ephemeral, transitory and ineffectively turbulent character of the ordinary trades union, should gather the workmen into a fraternal and beneficial association, in which the mutual practice of brotherly offices and a sense of community of interests would gradually draw them away from the influences that divided them; remove the bitterness existing among them; break up the class prejudices that were the fruitful source of many of their sufferings, and through frequent meetings and discussions of their condition, rights and duties, educate them to a higher plane of intellectual and moral life,

and enable them, by union of interest and purpose, to first learn themselves what their rights and wrongs were, and then, by united and intelligent action, secure, as far as possible, the first and remedy the last.

In pursuance of this design, a petition was presented to the court of common pleas of Schuylkill county, on the sixth of April, 1868, asking for a charter for "The Workingmen's Benevolent Association of St. Clair," in accordance with the provisions of the act of Assembly, approved the thirteenth day of October, 1840. In due course of business the court granted the charter, with the following persons named therein as corporators, viz: Thomas Tempest, John Orme, Robert Wilde, John Siney, John Gittins, Timothy Crowley, Ralph Platt, Solomon Besse, John Cowan, William Scholes, Robert Bowers, William Howarth, Adam Amerd, Thomas Pilling, Daniel Hughes, Levi Orme. This was the initiatory movement in the organization of workmen in the county, which has since been so violently assailed, so fiercely defended, and for years has exerted so powerful an influence. So little, however, of concert of purpose and action existed among the working population of the county, at that time, that, outside of St. Clair and its immediate vicinity, little or nothing was known of it or its objects.

AGITATION OF THE LABOR QUESTION, AND PASSAGE OF THE EIGHT HOUR LAW.

For a long time all over the country the subject of the relations of capital and labor had been earnestly discussed, through the press, on the lecture platform, and in the halls of legislation, National and State. Latterly that particular branch of the subject, bearing upon the hours of labor, had attracted the greatest attention, until the United States Congress passed an act, making eight hours a day's work in the arsenals, navy yards, &c., of the National Government; finally, during the session of 1868, the Legislature of Pennsylvania passed an act, which was approved the fourteenth day of April, 1868, of which the following, after the enacting clause, is the text:

"SECTION 1. That on and after the first day of July, eighteen hundred and sixty-eight, eight hours of labor, between the rising and setting of the sun, shall be deemed and held to be a legal day's work, in all cases of labor or service by the day, where there is no contract or agreement to the contrary.

"SECTION 2. This act shall not apply to or in any way affect farm or agricultural labor or service by the year, month or week; nor shall any person be prevented, by anything herein contained, from working as many hours over-work as he or she may see fit, the compensation to be agreed upon between the employer and employee.

"SECTION 3. All other acts or parts of acts relating to the hours of labor, which shall constitute a day's work in this State, are hereby repealed."

THE EIGHT HOUR STRIKE.

While the effect of this act was undoubtedly only to give the moral weight of legislative opinion in favor of shorter hours of labor, carrying with it no compulsory or enforcing power, still it was looked upon as a concession to the demands of labor, and it was expected among laborers, to a very great extent, that it would work a change in that respect. Therefore, when, sometime about the middle of June, 1868, some workmen were sitting about the slope mouth, at the noon hour, at one of the collieries in the Mahanoy valley, and one of them called attention to the fact that in a few days (the 1st July) the eight hour law would go into effect, an agitation was provoked that led to the hands at that colliery demanding of the managers that after that date the work should be run in compliance therewith. The answer being a negative or evasive, the hands all quit work and moved to the next colliery, making the same demand, and the reply being the same, were joined by the hands there, and proceeded to the next, and the next, and so on until every colliery in the valley was stopped, and the moving mass being joined at each colliery by all the men who were able to endure the fatigue of walking, it soon comprised nearly the whole working population of the valley, gathering enthusiasm and determination in proportion as their numbers increased. After stopping everything in that valley they divided into squads, each having the district in which it was to operate, and they spread over the whole county, some going over the Broad mountain into the southern coal-field, while others moved north toward Hazleton and the upper fields. In a few days every colliery in the county was at a stand. Considering the multitudinous character of the movement, and the enthusiasm and excitement the collection of such great numbers for a common purpose was calculated to produce, the work was accomplished in the southern field with singular freedom from violence and outrage. In the meantime, however, rumors began to circulate that those who had gone toward Hazleton were committing excesses by levying contributions of food and other refreshments on stores, taverns and farms on their route without making payment. The more discreet and thoughtful, those who have since given form and direction to the revolution, (for revolution it has proved to be,) and who have been so bitterly denounced as pestiferous demagogues, and designing mischief-makers, fearing that excesses would be committed that would array the laws and public sympathy against them, consulted together as to the best means to recall them. Money was raised to pay those who had suffered depredation, and a party sent after them, partly to effect their recall, and partly to try to secure some good result from a movement so great in volume and so unexpected—the greatest in numbers and determination that had ever been known in the re-

gion.) A grand mass meeting of all the miners and laborers in Schuylkill county was called at Mahanoy City, on the — day of —, 1868.

GREAT MEETING AT MAHANOEY CITY.

At the appointed time, the largest meeting ever seen in the region was held, the numbers being variously estimated at from twelve to twenty thousand. They were addressed by many of their fellow-workmen, among them many of those whose names have since figured so largely in unfriendly criticisms of the press, who all counseled moderation and good order, but earnestly and effectively urged the formation of a union, based upon the idea of brotherhood, mutual good will and community of interests. The answer to the appeals made to the men in the northern fields to act with them in favor of the eight-hour system, had been that they were acting together in a union, and could not co-operate with the men of Schuylkill unless they also formed a union. Measures were taken at this meeting to effect such organization, and the result was the adoption of the plan of the St. Clair Workingmen's Benevolent Association.

ORGANIZATION OF THE COUNTY ASSOCIATION.

On the application of John Siney, John Parker, John Holmes, Levi Orme, Michael Behan, Thomas Behan, Wm. Brown, Joseph Tempest, Peter Heartman and Crs. Lehman, as incorporators, the court, April 2, 1869, amended the above charter—First, by changing the name to "The Workingmen's Benevolent Association of Schuylkill County;" second—giving them power to organize sub-districts, or branches, anywhere in the county; and third—giving the trustees of said sub-districts, or branch societies, power to sue in the corporate name, &c. In a very short time nearly all the workmen in the county had connected themselves with this association.

THIS MOVEMENT PRECEDED BY ASSOCIATIONS OF OPERATORS.

During and preceding these movements, however, the operators had taken steps to organize for the purpose of combined effort to control the trade. The first that is known of these steps was in the year 1867, being an association of the coal operators north of the Broad mountain, under the name of "The Mahanoy Valley and Locust Mountain Coal Association." It embraced nearly all the larger collieries in that region.

It has been positively asserted, and as positively denied, that this association acted upon the understanding that a man discharged from, or leaving, one colliery should not be employed at another belonging to the association. It is certain that the impression was very general among the workmen that such was the case. In the inquiries made by the Bureau, the assertion has frequently been made that each colliery kept a list, upon which was put the names of men who left without the consent or against

the will of the superintendent, or who were discharged on account of disagreement as to wages, or for other cause of dispute, and that this was called the black list; that the names of such persons were sent to the other collieries, and that they could not get employment unless they first obtained the consent of the former employer. Men have positively asserted that to their certain knowledge this was true; but when pressed to give the names of parties keeping such lists, refused so to do on the ground that it would endanger their employment, and that they could not afford to take the risk of getting into bad repute by giving offence to employers. It is not believed that the custom continued for any great length of time, or was at any time general; but that such policy was discussed, and to some extent attempted, is beyond question true. (See testimony in coal investigation Legislative Documents, 1871, page 1603.) Whatever the policy of this association was, whether it controlled and mastered the workmen in this or some other way, it is certain it achieved such measure of success as led to the organization, during 1868, of three other similar societies, viz: "The Coal Association of the Southern Coal-field of Schuylkill county," located at Pottsville; "The Shamokin Coal Exchange," located at Shamokin; "The Mount Carmel Coal Association," located at Mount Carmel, and "The West End Coal Association," located at Tremont. "The Anthracite Board of Trade of the Schuylkill Coal Region," consisting of representatives from each of the above associations, was formed on the 19th November, 1869, with William Kendrick, Esq., as president. This organization at the time of its institution, included nearly all the operations in the county, and represented an annual product of 4,437,000 tons, and became from that time forward the instrumentality through which all negotiations and dealings affecting wages and disputes between the operators and the workmen were carried on.

COMBINATION AS MUCH THE RIGHT OF ONE SIDE AS THE OTHER.

It should be borne in mind, in considering the questions growing out of this agitation, that if, as has been asserted, combinations of workmen for the purpose of enforcing what they claim as their rights and interests are contrary to right and sound policy, the same rule must be held to be good as against similar combinations on the part of employers, designed to resist their claims and defeat their purposes. It is believed that this proposition will not be seriously disputed; and when it is remembered that the organization of the operators preceded that of the workmen by more than a year, and that if the policy before mentioned (of black lists) was not agreed upon as part of their appliances of control, it was, nevertheless, actually attempted in some instances, and certainly generally threatened, it will be conceded that the workmen had very respectable antecedent to follow, and a tolerably fair excuse for doing so.

EXTENSION OF THE W. B. A. OVER THE WHOLE ANTHRACITE FIELD.

The W. B. A. of Schuylkill county became connected with organizations of the rest of the coal-fields, and March 17, 1869, a general council of the Workingmen's association of the anthracite coal-fields of Pennsylvania was formed at Hazleton, in which the different counties were represented as follows, viz: Schuylkill, 4; Luzerne, 4; Carbon, 3; Northumberland, 3; Columbia, 2; Dauphin, 1.

END OF THE EIGHT HOUR STRIKE.

The organization of the workmen continued during the summer, and early in the fall of 1868 was fully effected over the county. The suspension caused by the eight hour strike had lasted several months, and the effect of it having been to deplete the market of coal so that the demand was active at good prices, and the men feeling that a great thing had been achieved by the gathering of all the different nationalities and clans together in the new society, removing the bitterness of factions, and uniting all in a common union for the good of all, work was resumed quite generally by the first of September, and during the remainder of the year continued more satisfactorily than for a long time.

SUSPENSION OF WORK TO DEplete THE MARKET.

During this time, and all through the winter, discussion was rife as to the best means of securing steadiness of work, at reasonably sufficient wages. The result of these discussions was the meeting and organization of the "General Council," referred to above, at which meeting they resolved to establish a newspaper to advocate their interests; and as the market showed indications of glut, from the active production of the last fall, it was resolved to prepare for a general suspension of work, which was to be ordered by the President, when four counties should vote in favor thereof, of which one week's notice should be given. As is indicated by this action, the impression was strong in the minds of the men and their representatives, that a minimum should be fixed to the price of coal, below which it should not go, and that a general suspension of all work should take place when the market would not take it at that price, to continue until the consumption should make the demand equal to it. It is enough to remark here that this idea was not looked upon universally, even by operators, as chimerical. Many looked upon it hopefully, and saw in it the possibility of a solution to the question of over-production; failing, however, to remember that, as long as through any cause, a profit should be maintained on coal mining, speculators would infest the trade in their attempts to make sudden fortunes, and that, should it prove possible to hold the trade to such an arrangement, the year would soon be consumed pretty nearly by suspensions. Wise or unwise, this course was resolved

upon by the General Council, and on the 29th of April, 1869, Mr. John Siney, as President of the Schuylkill association, in accordance with the above-mentioned resolution, ordered a suspension of all work except rock-work, timbering and repairing, to go into effect May 10. This suspension was general throughout the anthracite region, with the exception of "the Pennsylvania Coal Company," and the "Delaware, Lackawanna and Western Coal Company," who, by offering their workmen extremely liberal wages, succeeded in tempting them to break faith with their fellows, and they continued working as though no suspension had taken place.

The suspension, except as above stated, continued throughout the whole northern anthracite region for five months, from April to August.

RESTRICTION OF PRODUCTION PROPOSED.

Another meeting of the General Council of the W. B. A., was held at Hazleton, May 11, and in pursuance of the general idea of preventing over-production, passed resolutions restricting miners to one car, or mine wagon, of coal per day, less than the usual days work, and to restrict work by the yard in proportion. While all these attempts at a solution of the difficulty, undoubtedly look, in retrospect, like the blind groping of men in the dark; and although they have since been severely criticised and denounced, yet, at the time, there was no such general disapprobation among lookers on, as would seem to be indicated by later comment.

BASIS SYSTEM DETERMINED ON—WAGES LEFT TO DISTRICTS.

The subject of the basis principle for the adjustment of wages was discussed and agreed upon, the minimum price of coal upon which wages were to be based being fixed at five dollars per ton, at Elizabethport, and three dollars at Port Carbon.

The question as to what the wages were to be at the basis, and what the percentage of advance as the price went up, was referred to the executive boards of the several districts for settlement, only providing that if any district failed to secure a fair basis, they were to be supported by those who did succeed.

COAL ASSOCIATIONS PROPOSED BASIS.

On the fourth of June, 1869, the executive committee of the coal associations of the Schuylkill region, submitted the following proposition to the men:

1st. Prices of labor to be regulated by the price of coal—taking the average of all sizes at Port Carbon; the percentage to be regarded in making the average to be, larger sizes, seventy-five per cent.; chestnut, twelve and a half per cent., and pea twelve and a half per cent.

2d. When the average prices of coal is three dollars per ton at Port Carbon—

Outside labor to be.....	\$11 00	per week.
Platform men.....	11 50	"
Inside labor.....	12 00	"
Miners, per week.....	14 00	"

These all to be clear of costs.

3d. For each advance of twenty-five cents per ton in coal, at Port Carbon, an advance of fifty cents per week, and five cents per wagon; and for each decline of twenty-five cents a similar reduction; yardage to be in proportion.

4th. The advance and decline in the price of coal, to be determined by a board of five operators, to be appointed by the W. B. A., who will pledge themselves to make a true and correct statement of their sales for each month.

5th. The rates of wagon-work and yard-work to be those now existing at each colliery, on which the advance or decline is to operate, unless modified by amicable agreement between the employer and employee.

6th. No stoppage of work until a notice of six days has been given.

7th. If any colliery represented in this association is prevented from starting by reason of any threats against bosses or other employers, or by reason of any attempted dictation as to who shall, or who shall not be employed, whether as boss or other employee, we, as representatives of the coal association, pledge ourselves to remain idle until such colliery be able to start wholly free from any such restraint or interference.

8th. We also require that the local committees shall abstain from all illegitimate interference with the working of the collieries.

THE ANIMUS AND CHIEF CAUSE OF THE TROUBLES THAT FOLLOWED.

An examination of this proposition will exhibit the real animus, and very nearly the only cause of disagreement that led to the very disastrous conflicts that followed this first year of operations under the basis system. In the old time of pitiless oppression on the one hand, and violence on the other, objectionable rules or orders were often followed by violent threats, and violent acts against the bosses, or other confidential servants who had the responsibility of their enforcement. And as is the case in all disorganized communities here, where the arm of the law was comparatively powerless to reach an offender against its sanctity for reasons already explained, and where the lack of organization left every man of their class, standing in a great degree isolated from the rest, the most reckless, desperate and vicious of the community, exerted the greatest influence, and gave their tone to the general character, instead of receiving tone from the more thoughtful, well disposed and respectable. As a consequence, the perpetration of outrages were frequent, generally undetected, and never punished,

for the simple reason that isolation had made the better elements weak, and given immunity to the worst. As a consequence, the character of the whole working class suffered, all being held in the same repute, the operators looked upon their organization only as an instrumentality of greater possible outrage, and sought to guard against it by special agreement, such as contained in the seventh and eighth clauses of this proposition. *If the operators could* at this time have divested themselves of the prejudices so industriously cultivated for years, and have met the men in this organization in a spirit of amity, *could have realized* what has since been demonstrated, that the association was to exercise an influence that would quell the turbulent, or drive them from the region, and bring into controlling influence the better elements of the working population, much of the difficulty that afterward occurred, and was attended with such disastrous results, might have been avoided.

COMBINED ACTION CLAIMED TO BE CONSPIRACY.

As it was, many held that the organization itself, for the object it had in view was in violation of the laws, and that at the first act of its authorities looking like combination for any tangible action in reference to wages, or other matter of specific interest, the members participating would be liable to prosecution under the conspiracy laws.

EFFECT OF THE CHARGE OF CONSPIRACY.

So strong was this impression and so confidently asserted that the effect was to deter many from attaching themselves to the association who otherwise would have done so, and when the contest came, in which the body refused to work until some question at issue should be settled, these persons would disregard its action, and by doing work that was prohibited by its decision array themselves against their fellows and take sides with the employers. There was probably no cause that operated so effectively to keep alive the feeling of hostility existing between the two parties as this.

CLAIMS OF THE RIVAL PARTIES.

The operators claimed that any pressure brought to bear upon their workmen individually, affecting the question as to how, when, or for what wages he should work, by any combination of other workmen, was a violation of individual rights and an act of conspiracy. On the other hand, the W. B. A. claimed that their right to organize for mutual protection was exactly the same, no more, no less, as that of the operators. That if the combination of individual workmen that constituted the W. B. A. could not determine the conditions upon which its members should work, and if such determination and consequent action constituted them conspirators within the meaning of the law, they really had no right to organize at all;

were helpless in the hands of those who used their labor; were bound to accept such compensation as was offered them; and that, while the employing interest could unite and plan, and arrange with each other to reduce wages by concerted action, the workmen must stand isolated from each other, with no power of mutual defence; in short, were outside, so far as their mutual pecuniary interests were concerned, of the protective shelter of the law. They claimed that the necessity of their organization had been demonstrated by their sufferings and degradation, and that if, (as they asserted was true) preference was given in employment to those of their number who did not recognize that necessity, or recognizing it, were so unmanly as to permit themselves to be tempted to embarrass the general effort by aiding their antagonists, they would have a right to determine, collectively, that they would not work in the same employ with them. Otherwise, the value of their effort might be entirely neutralized by those who were the least honorable among them being most favored in employment, and thus the very vices of their class, which one of their chief purposes was to eradicate, be used as the instrument of their defeat.

It is true, also, that many of the operators were not obnoxious to the charge that was in this regard made against operators generally, yet, in the heat of the struggle, their voice was for the time lost in the turmoil of contention, as was, on the other side, that of the more discreet and conservative of the workmen.

END OF THE SUSPENSION AND THE SEVENTH AND EIGHTH CLAUSES REJECTED.
BY THE W. B. A.

The result was that upon considering the proposition made by the coal association, the general council of the W. B. A., having met at Mahanoy City on the 9th of June, and resolved, "that the object of the suspension having been attained by the depletion of the surplus of coal in the market, on and after June 16, all districts or branches that can agree with their employers as to basis and conditions of resumption, do resume work," the executive board of the W. B. A. of Schuylkill county declined to acquiesce in or discuss the seventh and eighth clauses of the operators' proposition, on the ground that the workmen claimed no right to illegitimate interference in the working of the collieries, or as to who should be employed. They were satisfied with the basis proposed by the operators as to wages, in the main, and in order to avoid discussion of, or committal on the other propositions it contained, made the following counter proposal viz:

PROPOSITION OF THE W. B. A. AND ITS ACCEPTANCE.

That we demand for outside labor \$11 per week; platform men, \$11.50; inside labor, \$12, and miners \$14 per week, when working on wages; all inside work to be clear of expenses; also, that contract work be raised in

accordance therewith. This to be asked when coal is selling at Port Carbon at \$3 per ton.

That we receive one-fifth of all advances hereafter, and all reduction to be taken off in accordance to the above advances.

The advance and reduction to be on all sizes above pea.

After some consideration, this proposal, varying but little from their own, the operators accepted, and work was resumed in Schuylkill. In those parts of the northern region in which the suspension had occurred, the operators having refused to adopt a basis, the suspension continued until August, at which time the men yielded and went to work without.

RATES OF WAGES UNDER SETTLEMENT FOR 1869.

For the months of June, July and August the wages were agreed upon by the committees representing the two associations, upon hearing the statements of the presidents as to prices, the high percentage for August having been given to make up for a deficiency in that of July. After August, the prices of coal were reported in writing by five firms selected each month for that purpose, on the 25th of the several months, and the wages were based upon the average price so obtained, it requiring, however, an advance or decline of $12\frac{1}{2}$ cents per ton in price to effect an advance or decline in wages. The work was generally begun in the county from the 10th to the 15th of June, and the wages paid during the year were as follows, given by months—the rates being wages of laborers outside, inside, and miners by wages:

		WAGES PAID PER WEEK.		
MONTHS.	RATE.	Miners.	Inside laborers.	Outside laborers.
June	10 per cent. above basis...	\$15 40	\$13 20	\$12 10
July	15 per cent. above basis...	16 10	13 80	12 65
August	35 per cent. above basis...	18 90	16 20	14 85
September	Basis	14 00	12 00	11 00
October	10 per cent. above basis...	15 40	13 20	12 10
November	15 per cent. above basis...	16 10	13 80	12 65
December	Basis	14 00	12 00	11 00
Average		15 70	13 46	12 34

The above gives the rates of wages paid for wage-workers only. Those working by contract can only be estimated.

CLASSIFICATION OF WORKMEN IN SCHUYLKILL COUNTY.

In order to present as near as is practicable, the actual condition of the workingman, as illustrating the whole struggle that we are considering, great care has been taken to get as near an approximation to a correct classification as possible, and then by an analysis of the census of the

United States for 1870, the census year being from June, 1869, to June, 1870, and covering the whole time that the wages under this agreement prevailed, to show what the actual average earnings of persons working in and about coal mines in Schuylkill county in that year were. After preparing this classification and statement from the best knowledge and data attainable, it was submitted to the criticism of as many of the most experienced operators as the means at our disposal admitted. In its general features its correctness was conceded. Where the better knowledge of their greater experience suggested amendment, it has been amended, and is believed to present the real facts, as near the exact truth as it is possible to approximate.

The census gives the returns of ninety-one collieries, the whole number of persons employed being 15,778. Of these are:

Men above ground.....	3,187
Men under...do.....	8,611
Boys above...do.....	3,094
Boys under...do.....	886

The total amount of wages paid, as per return, \$6,039,774. The above numbers include all persons employed in and about these ninety-one coal mines, except superintendents and clerks. We are, therefore, to deduct from the whole the number of such persons included in this number as are employed for full time, and whose pay, consequently, does not cease when the colliery stops from any cause. These may be stated as follows, with their rate of pay:

91 mining bosses at	\$1,200 00 per year...	\$109,200 00
91 assistant mining bosses at	800 00 ..do.....	72,800 00
91 breaker bosses at	1,000 00...do.....	91,000 00
273 engineers at.....	15 00 per week..	212,940 00
273 mechanics at.....	15 00...do.....	212,940 00

Amount paid to hands other than miners and laborers.. 698,880 00

Deduct this amount from the total wages paid, and it shows the amount paid to miners, laborers and boys to have been \$5,340,894. From the whole number of persons employed deduct the 819 persons above specified, as follows: From the 8,611 given as men under ground, deduct the mining and assistant mining bosses, (182,) which will leave 8,429 miners and inside laborers; from the 3,187 men above ground deduct the breaker bosses, engineers and mechanics, (437,) which will leave 2,550 outside laborers. The boys inside and outside are left as in the census. Divide the whole number of miners and inside laborers by five, and three-fifths will be miners

on contract, while of the remainder one-third will be miners on wages, and two-thirds inside laborers. The classification is then as follows:

Miners on contract (yard or wagon).....	5,056
Miners on wages.....	1,124
Inside laborers.....	2,249
Outside laborers.....	2,550
Boys inside.....	886
Boys outside.....	3,094

Total number of miners, laborers and boys.....	<u>14,959</u>
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A distinguished operator of Schuylkill county, said in his evidence before the Senate Judiciary Committee, in the coal investigation in 1871, that he "did not believe there was an average of more than five wage-working miners to a colliery in Schuylkill county." This must have been intended to mean miners *usually* employed at day or week wages. This is, doubtless, very near correct; but it should be taken into consideration, in making this classification, that very often miners working at a contract have one or more miners working for them at wages; also that contract miners generally are credited with from one to six days work at wages in a month, in addition to their yardage or wagons, for timbering or other extra work that the exigencies of mining operations render necessary. It is believed that a critical examination of the books of average collieries will demonstrate that the amount earned by miners on wages will reach an amount equal to the above classification.

WHY CLASSIFICATION IS NECESSARY.

In giving a statement to show actual average annual earnings of all persons employed and enumerated in the census returns, a classification such as this is necessary, because an average of the whole would be misleading; for instance, if 14,959 persons earn \$5,294,302, the average to each (unclassified) would be for the year \$353 92. As this would be much less than the best class of skilled miners really earn, and more than the lower grade laborers and boys earn, it would fail, so far as information as to their actual condition is concerned. In the following tables, the average day's earnings of miners by contract is estimated, as it has proved impossible to get the exact figures, owing to the extreme diversity in the capabilities, steadiness and industry of the men themselves, and of the circumstances, favorable or unfavorable, under which their work is done. It is very common to estimate in general conversation the average earnings of contract miners, at the \$3 00 basis, at \$4 00 per day, and in the first table we made they were put at that; but further investigation and consideration shows this to be too high, and that \$3 50 per day is a much closer approximation. The

average wages of boys will not be far from \$1 00 per day inside, and 75 cents per day outside. The following table will exhibit our classification, the average daily earnings of each class, and the general average earnings at the basis :

Rate per day.	CLASS.	Number.	Earnings per class per day.
\$3 50	Miners on contract.....	5,056	\$17,696 00
2 33.33	Miners on wages	1,124	2,622 63
2 00	Inside laborers.....	2,249	4,498 00
1 83.33	Outside laborers.....	2,550	4,674 91
1 00	Boys inside.....	886	886 00
75	Boys outside.....	3,094	2,320 50
	Totals.....	14,959	32,698 04

General average daily earnings, \$2 18.58¢

NINE MONTHS AN AVERAGE YEAR'S WORK.

It will be noted that, while these wages were substantially the offer of the operators, yet the workmen accepting them promptly, and having adhered to them afterward through the contest in 1870 and 1871, they may be taken as what they believed their wages ought to be.

A statement showing what would have been the actual possible average earnings of each class for a year under that arrangement, will be a better demonstration of the fairness or unfairness of their demands, than could be presented in a whole volume of argument or assertion. Supposing that the price of coal should stand at \$3 00 for a full year, with the best feeling existing between employer and employed, and all the conditions as favorable as have ever been known for the steady prosecution of work, the average time made in the year by any ninety-one collieries could not exceed nine months of about twenty-four days each. There are only two instances as yet heard of in this investigation, in which collieries have been known to work as much as eleven months in any one year. The causes of stoppage are so many and so difficult to foresee and guard against—such as breaking of machinery, falls of slate, rock or coal, explosions of gas, drowning out by water, &c.—that the colliery that succeeds in making even ten months in a year is exceptionally fortunate—so much so that an average of nine months for the year, for the whole, is believed to be a full estimate.

HIGHEST POSSIBLE ACTUAL AVERAGE ANNUAL EARNINGS AT THE BASIS.

The following will exhibit, then, the highest possible actual average earnings of the different grades of workmen in and about coal mines per year, at the basis of 1869:

Miners by contract, 216 days, at \$3 50 per day.....	\$756 00
Miners by wages .....do....do..2 33.33 do.....	503 99
Inside laborers.....do....do..2 00....do.....	432 00
Outside laborers .....do....do..1 83.33 do.....	395 99
Boys inside .....do....do..1 00....do.....	216 00
Boys outside .....do....do.. 75....do.....	162 00

This agreement, it will be observed, was reached in June, 1869, the beginning of the census year. It continued throughout that year (1869) by mutual consent. In December, however, the operators gave notice that a new bargain must be made for the year 1870, which the workmen refused to accede to, and as a consequence all work done during the census year, that is to say, from June, 1869, to June, 1870, was paid for at this basis. Although the dispute continued during the winter and spring, indeed, until August, 1870, before a settlement was reached; yet the work was at no time entirely suspended, and up to June 1, 1870, considerable shipments were made. The rate of percentage of advance for the census year may be stated as follows:

June, 1869, 10 per cent. advance on the basis; July, 1869, 15 per cent. advance on the basis; August, 1869, 35 per cent. advance on the basis; September, 1869, basis; October, 1869, 10 per cent. advance on the basis; November, 1869, 15 per cent. advance on the basis; December, 1869, basis; January, 1870, basis; February, 1870, basis; March, 1870, basis; April 1870, basis; May, 1870, basis.

The rates of wages that prevailed during the seven months of mutual agreement (June 1, 1869, to December 31, 1869,) are seen to have averaged $12\frac{1}{7}$ per cent. above the basis. But if the calculation to show actual average earnings for the census year is predicated on that rate of advance, the earnings for these seven months will be found to absorb the whole amount claimed to have been paid for the census year. The percentage of advance is, therefore, for the purposes of this inquiry distributed over the whole year, and shows an average advance of wages above the basis for the census year of 7.08 per cent. This was a very high rate of wages for the coal-fields, being at least twenty-five per cent. higher than the average for 1868, although that was a considerable advance on that of 1867.

A table showing the amount actually earned and received by the several classes of mine workers during this year of high wages, which our classification and the census will enable us to give, very closely approximating the truth, will be very instructive and suggestive. The following table will show the

ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR THE CENSUS YEAR.

Rate per day...	CLASS.	Numbers,.....	Total amt. paid each class for year	Amount paid each class per day	Average earn- ings per man for year.....
\$3 74.78	Miners by contract	5,056	\$2,890,401 26	\$18,948 87	\$571 08
2 49.85	Miners by wages	1,124	428,521 21	2,809 31	381 25
2 14.16	Inside laborers	2,249	734,687 89	4,816 45	326 67
1 96.3	Outside laborers	2,550	763,547 57	5,005 65	299 43
1 07.08	Boys inside	886	144,714 80	948 72	163 34
80.31	Boys outside	3,094	379,021 27	2,484 79	122 59
Number of miners, laborers and boys...		14,959	5,340,894 00	35,013 79	
Number and pay of full time hands.....		819	698,880 00		
Totals of census tables.....		15,778	6,039,774 00		

OUR ESTIMATE OF NINE MONTHS AS A FULL YEAR'S WORK CORROBORATED.

This table fully corroborates our estimate of 9 months of 24 days each as a full average year's work, by dividing the total amount paid by the total earnings of one day under this classification and these wages, it will be seen that the average time made in this year was a little over $152\frac{1}{2}$ days. This gives less than $6\frac{1}{2}$ months of 24 days each for the year, when it is remembered that at least 6 months of this time, from the middle of June to the middle of December, 1869, under the impulse of high wages, everything was pushed to its utmost capacity, and from that until the first of April, 1870, three months, work was not entirely suspended at any time, and the most of the time pretty full. This showing will be very suggestive of the interruptions attendant upon the trade, and go far to vindicate the average adopted here. If, in the ten months from June 1, 1869, to April 1, 1870, six months of which work was pushed to the fullest capacity, and the remainder subject to very little more than the usual interruptions, only six months and less than a half could be made, it is hard to understand how the general average for twelve months could be more than nine.

CAUSES OF DISPUTE AND REAL ANIMUS OF PROPOSED CHANGE OF BASIS.

It is not proposed in this place to discuss at length the considerations suggested by the above table, but to proceed with our statement of the incidents of the contest as they occurred. The price of coal fell in December to an average of \$2 74 per ton. This reduction in price cannot be held as a sufficient reason for the action of the coal association that followed, because if the price should fall still lower under the agreement of 1869, wages were to fall in proportion. Considerable bitterness of feeling had continued throughout the summer and fall, growing out of the conflicting views, and (not always honest) practices on either side, on the question of

the right, and extent of the right, of what the operators called "interference."

TACIT AGREEMENT.

It was tacitly understood, when the settlement was made, that no one on either side should be made to suffer for any thing that had occurred in the past. That is to say, no workman was to be discharged, or in any way disadvantaged, as a consequence of anything he had done in promoting the organization, or any part he had taken in vindicating its purposes. On the other hand, no pressure was to be brought to bear, or demand made for the discharge of any workman who had worked contrary to the wishes of the Workingmen's Benevolent Association, and who having done for their employers needed service during suspension, had thus laid them under obligation to see them whole, at the same time that they had made themselves obnoxious to the charge of taking sides against their compeers.

THE TACIT AGREEMENT VIOLATED.

While this was the tacit understanding, it was not a specific part of the agreement, and the result was, that in isolated instances it was violated on both sides. Sometimes a superintendent would discharge, or refuse to re-employ a man who had at sometime been the bearer, as committee man, of some communication from the branch society to which he belonged, conveying their determination of some question at issue. Again, the men would insist upon the discharge of some man who had made himself obnoxious by what they called "blacklegging," and refuse to work until such discharge was effected.

OBLIGATION TO SUSTAIN A MEMBER IN ALL JUST DEMANDS.

Again, among the rules adopted in the constitution of the association, (as will be seen by reference to its text in another part of this report,) was one making it obligatory upon the branch to sustain a member in any just demand or complaint he had to make of or against his employer; for instance, a man complains that the place he is working in, is exceptionally hard, and claims, that, to put him on an equality with the rest, the price per yard or wagon should be advanced; upon his application to the branch, a committee is appointed to examine the place and report; if they find the complaint groundless, the complainant has the choice to continue in it or leave it, and let some one else work in it. But, if the committee find the complaint well grounded, the amount of advance that should be given, is fixed upon and demanded, and if not acceded to, no member of the association will work in it until it is.

OBJECTED TO BY A. B. OF T., AND DETERMINATION TO BREAK UP THE W. B. A.

This the operators claimed was an illegitimate and arbitrary interference with their business that could not be acquiesced in; the consequence was, that a "hue and cry" was raised, that the workmen, through their ignorance and irresponsibility, as consequent upon it, were so inflated with the sense of power their organization produced, that they assumed to control the business of the operators, and that the only salvation of the trade was to brake them up and disorganize them.

ATTACKS UPON ITS OFFICERS THROUGH THE PRESS.

Violent tirades against them filled the press, and the most bitter denunciations were heaped upon their executive officers, who were denominated "leaders," and characterized as ignorant and worthless demagogues, who were leading the masses astray for the sole purposes of their own selfish aggrandizement. The men were urgently advised to cut loose from them, and from an organization that could only result in greater impoverishment and degradation.

PROSECUTION FOR CONSPIRACY.

At one colliery a case was made up in which three men had applied for a committee to examine their work on their claim for an advance of price, and on the committee sustaining their demand, which was rejected by the operators, (one of which was the president judge of the courts.) No one could be got to take their places. A suit for conspiracy was instituted against the three men and they were convicted and imprisoned. In fact, the assault was so vigorous, by every means that could be applied, and the appeals to their fears on the one hand and their cupidity on the other so formidable that it is really matter of surprise that they did not yield and the association fall to pieces.

They did not, however; and on the 29th December, 1869, at a meeting held in Tremont, the Anthracite Board of Trade, manifestly in pursuance of the same line of policy, offered the following terms for 1870, at the same time publishing their determination to adhere to them:

PROPOSITION BY A. B. T. FOR BASIS FOR 1870.

"*Resolved*, That hereafter the basis shall be fixed at \$2 per ton at Port Carbon, and wages, whilst coal brings that rate, shall be—

Outside labor.....	\$7 50 per week
Inside labor.....	8 50 " "
Miners on wages.....	10 50 " "

The contract work to be reduced from the present \$3 basis, 40 per cent.

"The advance of wages as the price of coal advances shall be as follows:
When the average of all sizes from lump to chestnut (both inclusive)

reaches \$2 50, five per cent.; \$3, ten per cent.; \$3 25, fourteen per cent.; \$3 50, seventeen per cent.; \$3 75, twenty-one per cent.; \$4, twenty-five per cent., and further advances in the same proportion; *and in all cases costs must be paid by the parties using the same.* These prices to be obtained from the average of actual sales as shown by the books of five operators." It should be mentioned here that the costs spoken of in this proposition are the cotton, oil, tools, &c., needed in the mines, and amount to from \$1 50 to \$2 per month.

ITS EFFECT UPON THE WORKMEN.

This proposal was not formally rejected, but was received with such indignant contempt by the men that they did not even give it consideration. The feeling excited by it was intense and bitter to the last degree. Probably nothing could have been devised at that time that could have so effectively and thoroughly neutralized all other appeals to them and influences brought to bear on them, and have created so complete a unity of purpose and action among them as this. They accepted it as the guage of war; held it to be a notice of the coal association of its determination to break their organization in pieces by forcing the acceptance of terms that would destroy it, or attempting to starve them into submission by refusing to work on any other. Their answer to it was, to demand the three-dollar basis as a minimum, requiring that wages should not go below the basis, whatever coal might sell at. To show the reasons for this intensity of feeling, it is only necessary to present in tabular form the highest possible actual average earnings in a year under its provisions:

HIGHEST POSSIBLE ACTUAL EARNINGS IN A YEAR UNDER THE PROPOSAL OF DECEMBER 29, 1869.

Miners on contract, 216 days, at \$2 10	\$453 60
Miners on wages ....do...do.. 1 75	378 00
Inside laborers.....do...do.. 1 41.66.....	305 98
Outside laborers.....do...do.. 1 25	<u>270 00</u>

SOME OPERATORS REFUSE TO BE BOUND BY IT.

The operators who were not members of the Anthracite Board of Trade continued steadily at work, while many of those who were, felt that the proposition was a mistake, and although they stopped, were restive and dissatisfied. This feeling was so general that on the 17th of January the restriction on work was removed by the Anthracite Board of Trade, and it was agreed that all might work who thought proper to do so, and work was quite generally resumed.

THE PROPOSAL OF DECEMBER 29 WITHDRAWN AND A NEW ONE OFFERED.

On the 18th of February, 1870, the Anthracite Board of Trade withdrew the above offer, and proposed a new one at a basis of \$2.50 per ton at Port Carbon, with wages as follows, to wit:

Outside labor to be.....	\$9 00	per week.
Inside labor....do.....	10 00	"
Miners' wages...do.....	12 00	"

Miners on contract, work to be reduced thirty per cent. below present prices; inside work, clear of expenses, (expenses here mean the same as costs in the former proposal,) wages to advance twenty per cent. on every advance of one dollar in price of coal, or in that proportion for any smaller advance.

HIGHEST POSSIBLE ANNUAL EARNING UNDER THIS PROPOSAL.

The highest possible average annual earnings under this proposition, had it gone into effect, would have been as follows:

Miners on contract, 216 days, at \$2 45 per day.....	\$529 20
Miners on wages ...do....do.. 2 00....do.....	432 00
Inside laborers....do....do.. 1 66.66..do.....	359 98
Outside laborers...do....do.. 1 50....do.....	324 00

SHOULD HAVE BEEN ACCEPTED—MEN STUBBORN—WHY?

From the best information attainable by the Bureau, it is believed that if this proposition had been made on the first of the year, with explanations, and in an amicable manner, instead of the former unfriendly one, and the threats that were circulated of breaking up the W. B. A. at any cost, had been denied or disavowed, it would have been accepted; inasmuch as there was no disposition manifested in the northern coal-fields to join in a general suspension to keep the price of coal up to \$3 per ton. But, as it was, coming after the action that the men called the declaration of war, it was regarded as their first victory over the A. B. of T., and there was no disposition to yield any part of the position they had taken, or accept anything that looked like compromise. It was generally felt among lookers-on who sympathized with the workmen that they ought to have accepted this offer, and the leaders, as they were called, gave their influence in that direction. The proposition, however, had come too late, considering the action that preceded, and it was definitely rejected, the men insisting stubbornly on the \$3—or basis of 1869.

GREAT MEETING OF OPERATORS, AND WHAT FOLLOWED.

On the 15th March, 1870, a very large meeting of operators was held at the Union Hall, in Pottsville. The refusal of the workmen to accede to

the \$2 50 basis had again united them, and seventy-six firms, representing an annual product of over four million tons of coal, were present, and agreed to stand by the offer of the A. B. of T. of the 18th February, and giving notice that if it was not accepted they would suspend work on the 2d of April. Again it was rejected, the workmen still demanding the \$3 basis, and all work at once ceased, the tonnage falling within three weeks to 16,638 tons per week. In view of the consequences that followed, every well-wisher of the interests involved, must remember with renewed and increasing regret, this most unfortunate conclusion.

While this state of affairs existed in Schuylkill, the work in the other counties was pushed to the utmost. The absence of Schuylkill coal from the market maintained prices through the summer at exceedingly profitable rates for the other fields, and it was demonstrated that in a short time, with such stimulation to development, the market could be supplied without her producing any.

THE GOWAN COMPROMISE OFFERED BY THE MEN.

Nothing else was done, except crimination and recrimination, until the 22d of July the workmen, through the interposition of Mr. F. B. Gowan, President of the Reading railroad company, offered the following terms, which have been known since as the "Gowan Compromise," viz:

"Resolved, That we, the members of the Workingmen's Benevolent Association, do offer our employers of Schuylkill county to start on the basis of 1869, when coal is three dollars per ton at Port Carbon.

"Resolved, That when coal brings \$3 25, we demand $8\frac{1}{4}$ per cent. of an advance; \$3 50, $16\frac{1}{2}$ per cent. of an advance; \$3.75, $24\frac{3}{4}$ per cent. of an advance; \$4.00, 33 per cent. advance.

"Resolved, That when coal falls below the basis of 1869, say \$2 75, we accept a reduction of $8\frac{1}{4}$ per cent.; \$2 50, $16\frac{1}{2}$ per cent.; \$2 25, $24\frac{3}{4}$ per cent.; \$2 00, 33 per cent., and nothing lower.

"Resolved, That any miners working on contract after they start, earning over \$100 00 per month, be reduced 10 per cent.; \$125 00 and over, 20 per cent.; \$150 00 and over, 30 per cent.; \$200 00 and over per month, if there be any, 40 per cent.

"Resolved, That the above figures be taken from the six grades of coal, pea coal not included.

"Resolved, That the above resolutions be handed to F. B. Gowan, Esq., President of the Philadelphia and Reading railroad company.

(Signed)

"JOHN SINEY, *President.*

"GEORGE CORBETT, *Secretary.*"

OPERATORS' RESOLUTION BROKEN, AND AGREEMENT MADE.

This proposition from the men again broke the line of the operators' resolution, and a number of them having given orders to start their collieries under it, the Anthracite Board of Trade formally accepted it, but under strong protest against its justice. At the same time, on the 29th of July, 1870, the executive committees of the Anthracite Board of Trade, and the Workingmen's Benevolent Association, met at Pottsville and signed the following agreement, as supplementary to and explanatory of the Gowan compromise:

"Agreement, made at Pottsville, this 29th of July, 1870, between the committee of the Anthracite Board of Trade, and the committee of the Workingmen's Benevolent Association.

"It is agreed that the Workingmen's Benevolent Association shall not sustain any man who is discharged for incompetency, bad workmanship, bad conduct, or other good cause; and that the operators shall not discharge any man or officer for actions or duties imposed upon him by the Workingmen's Benevolent Association.

"It is further agreed, that the spirit and intention of the resolution (called the equalization resolution) passed by the W. B. A. is, that each man shall work regularly, and it is the place of the bosses and operators to see that he does.

"The resolution is, that any miner earning above expenses over one hundred dollars and less than one hundred and twenty-five dollars per month, shall be reduced ten per cent. on the basis; earning over one hundred and twenty-five dollars and under one hundred and fifty dollars per month, shall be reduced twenty per cent. on the basis; earning over one hundred and fifty dollars and under two hundred dollars per month, to be reduced thirty per cent. on the basis; earning over two hundred dollars, to be reduced forty per cent. on the basis.

"For obtaining the prices of coal monthly, the president of the Anthracite Board of Trade and the president of the Workingmen's Benevolent Association of Schuylkill county shall meet on the 20th day of each month and select five operators, who shall, on the 25th instant following, produce a statement, sworn or affirmed to, of the prices of coal at Port Carbon for all sizes above pea coal.

"The five operators shall be selected from a list of those shipping over 40,000 tons annually, and none shall be selected a second time until the list is exhausted.

"The price of coal so obtained shall fix the rates of wages for that month, and this agreement in regard to the mode of obtaining prices shall remain in force during the year 1870.

WM. KENDRICK,
J. K. SIGFRIED,
M. P. FOWLER,
SAM'L E. GRISCOM,
BAIRD SNYDER.

JOHN SINEY,
GEORGE CORBETT,
GEORGE ATHEY,
JAMES BARRY,
ROB'T WEIGHTMAN."

THE EQUALIZATION RESOLUTION.

The equalization resolution contained in the foregoing proposition and explained in the supplementary agreement, was an answer of the Workingmen's Benevolent Association to the assertions constantly being made of the extremely large earnings of miners by contract, and doubtless was intended, so far as it might do so, to limit production. On the part of the operators it was held that the difference between the earnings of average contract workers and wage-workers was too great, and that if the contractors could be reduced to a reasonable extent, wages by the day could be advanced so as to give the wage-workers, particularly laborers, a better rate. It is not known that any miners were reduced under the equalization resolution, however, and it is still an unsolved problem whether the representation of the workmen was correct, that contract workers *did not* make such extraordinary earnings, or that of the operators that they did.

AUGUST FIRST—WORK STARTS—THE RESULT.

On the first of August the collieries got under way again, but it was almost immediately manifest that the long contest had ruined the business of Schuylkill county. The enormous increase in the upper regions during the summer came so near supplying the market, and the consumers of Schuylkill coal being forced to get their supplies elsewhere, had so generally made arrangements they did not wish to break off, that the Schuylkill operators found themselves literally without customers and a market. In this condition of the trade the wages for the next five months were as follows: For August, eight and one-quarter per cent. below the basis; September, sixteen and one-half; October, sixteen and one-half; November, twenty four and three-quarters, and December twenty-four and three-quarters. Thus ended a most disastrous year for all interested in the trade—disaster wrought, most assuredly, by a passionate, tyrannical, pitiless determination on the one side to retain or recover an unwarrantable mastership, and on the other by an equally passionate resolution of defence that ran into an equally unwarrantable greed for triumph.

APPROXIMATED AVERAGE EARNINGS IN 1870.

The following statement shows an approximation to the amount of the average earnings of each class of workmen during these five months. The same rule that reduces the time made in the year to nine months, when no unusual obstacles intervene, holds good here, and this five months cannot be counted as more than an average of four. More especially is this the case since work slacked off very greatly through the latter half of December. The wages averaged for the five months eighteen and one-tenth per cent. below the basis. The account, therefore, stands thus, viz:

Miners by contract, ninety-six days, at \$2 86.65 per day.....	\$275 18
Miners by wages.....do.....do.. 1 91.1 ...do.....	183 45
Inside laborers.....do.....do.. 1 65.5 ...do.....	158 88
Outside laborers .....do.....do.. 1 50.15...do.....	<u>144 14</u>

AGREEMENT TO ADVOCATE NEW BASIS FOR 1871.

Before the close of the season, on the 7th November, 1870, the committees representing the Anthracite Board of Trade and the Workingmen's Benevolent Association of Schuylkill county, met in Pottsville to arrange the basis for 1871. Both parties signed an agreement to advocate the following terms, provided that satisfactory arrangements could be made with the railroad company for a fair reduction of tolls. The agreement was "to commence with coal at \$2 50 per ton at Port Carbon; outside wages, \$9 per week; inside wages, \$10 per week; miners by the day, \$12 per week; contract work to be reduced sixteen and a half per cent. from the present basis; the reduction or addition of percentage to be graded on the new price thus formed, at the rate of one per cent. for each three cents advance or decline in coal.

ITS REJECTION BY THE W. B. A. AND THE REASONS THEREFOR.

Pending the consideration of this agreement, and before final action had been taken on it, the northern companies decided to reduce wages in their districts. Their workmen resisted; and finally, through the general council of the W. B. A., (the delegates from Schuylkill voting no, but being out-voted by the other counties,) a general suspension was ordered on the 10th of January.

Had the members of the W. B. A. of Schuylkill county cared as little for final results and as much for present advantage as the men in the upper regions had shown the year before that *they* did, abundant opportunity was offered now for them to avenge themselves on the men of the northern fields for their desertion of them at that time. But impressed with the urgent necessity of maintaining the organization intact, and perhaps influenced in some degree by a willingness to strike another blow at the authors

of the proposition of December 29, 1869, upon a vote being taken by the districts in the county, a very large majority having voted in favor of the old basis, the council of the W. B. A. in Schuylkill county resolved, January 25, 1871, "to adhere to the \$3 basis, if the men of the northern counties co-operated with them; if not, they would make the best terms for themselves they could."

BITTER DENUNCIATION OF THIS ACTION AND THE PRESIDENT OF THE W. B. A.

This action was vigorously denounced as an unexampled act of bad faith on the part of the W. B. A. That it was an inexcusably reckless withdrawal from a tacit agreement is beyond a question true; but that those who were called the leaders were in any degree responsible for it, is not true. A very ably written circular, prepared by John Parker, of Mahanoy City, and signed by John Siney, as president of the association, was printed and sent to all the districts, vehemently urging the ratification of the agreement. Nevertheless, the mistake was made of attacking the leaders with bitterest invective, charging them with all the opprobrious offences that could be thought of—thereby distracting attention from the real perpetrators of the wrong, and preventing that clear perception of the truth that would have made its continued violation impossible. The result was that the discussion degenerated into a war of crimination and recrimination, by which attention was distracted from the real points at issue, and the situation settled down into a complete "dead-lock."

The operators asserted that the leaders of the men were so ignorant, selfish and untruthful, that they were no longer fit for recognition, and refused to negotiate through them, and made a proposition to the men directly, over the heads of their officers, selected to attend to all negotiations. Of course, this had the effect to close the doors to all treaty, for the men would only consider propositions coming through their regular officers, and the dead-lock ensued.

UNITY OF THE OPERATORS BROKEN AGAIN, AND INTERFERENCE OF THE PHILADELPHIA AND READING RAILROAD COMPANY.

The result was, that the unity of the operators was again broken, and some of the collieries began to work on the basis of 1869, and one after the other the number increased from week to week. At this time the management of the Philadelphia and Reading railroad company interfered with an extraordinary policy, that created intense excitement at the time, and led to what is known as the great coal investigation before the judiciary committee of the Senate. This was nothing more nor less than to compel a settlement of all matters in dispute, and undertaking to regulate the trade and secure steadiness in its operations, by putting up the charges for transportation of coal, so that no collieries could work until all could work

under a common agreement; the impression prevailing that the tolls would be increased from time to time, to just such an extent as was necessary to prevent shipping, until such a settlement was reached. This was done, and a suspension of work that had been produced by a struggle between employers and employees, was made compulsory in its completeness and continuance by a power that neither could resist. The effect of this movement on the part of the company was to stop all shipment *via* the Philadelphia and Reading railroad and its branches, and was extremely disastrous to all the interests involved. Many of the operators approved of the interference, while some denounced it with great bitterness. The workmen protested strenuously against it, and invoked legislative interference, the result of which was, that the judiciary committee of the Senate, after taking testimony largely, reported that in accordance with certain decisions of the Supreme Court, the Legislature had no power to apply a remedy.

ARBITRATION.

In the meantime the discussion of the questions at issue continued, and on all hands great anxiety was felt to find some means by which the "dead-lock" could be broken, and business again resume its course. The subject of arbitration had for some time received a good deal of attention, and now became a very prominent topic of discussion, "which resulted finally in the selection of arbitrators from both sides, for Carbon, Luzerne, Schuylkill, Columbia and Northumberland counties, who met on the 17th of April, 1871, at Mauch Chunk, and chose Judge William Elwell, of Bloomsburg, for umpire, who attended their sessions in that capacity. E. W. Clark, on the part of the operators, and James Kealy, on the part of the workmen, formally presented their several claims and arguments in reference to the questions of interference with the works by the Workingmen's Benevolent Association, and of discharging men for their connection with the Workingmen's Benevolent Association, by the operators. The arbitrators failing to agree, the subject was referred to the umpire, who, at the next session, gave his decision as follows:

DECISION OF HON. WILLIAM ELWELL, UMPIRE.

"The umpire to whom was referred certain points in reference to control of collieries, upon which points arbitrators here present, chosen respectively by the operators and miners, have failed to agree, makes the following report:

"1st. The right of an owner or lessee and operator of a colliery to the entire and exclusive control and management of his works, is guaranteed to him by the law of the land, and is of such an unquestionable character that it ought not to be interfered with either directly or indirectly.

“2d. The umpire concurs with, and adopts as a correct statement of the law, that part of the late proclamation of the Executive of this Commonwealth, wherein he says that ‘it is unlawful for any person, or association of persons, by violence, threats, or other coercive means, to prevent any laborers or miners from working when they please, and alike unlawful, by such violence and threats, to deter or prevent the owners or operators of mines from employing whomsoever they may choose to employ, and at such wages as may be agreed upon between the employer and the person employed.’

“3d. It is the undoubted right of men to refuse to work, except upon such terms as shall be agreeable to them; but a general understanding that no person of a particular association of laborers shall work for any operator who has in his employ a member of such association who has not paid his dues to the association, or who does not belong to such association, is contrary to the policy of the law, and subversive of the best interests of the miners and their employers. An association may inflict fines upon its members for breach of its by-laws, and expel for non-payment, but it has no right, by combined action, to place the defaulter in the light of an outlaw, in the transaction of business with others.

“4th. The umpire decides that it is contrary to the spirit of the law, as stated secondly above, for a body of men to agree not to work because their employer refuses to employ a particular person, or because he has discharged such person. If such a case arises where the act of the operator is deemed to be oppressive, and he refuses to redress the wrong, it is a proper one for local arbitration, by which, in most cases, the difficulty could be properly settled without the disastrous consequences arising both to the employers and the employed by a strike, even at one colliery.

“5th. As persons of sound mind and competent age are permitted by law to bargain for themselves, their contracts in regard to labor at the mines should be held as sacred as other contracts, and should not be annulled or set aside in any manner different from that provided for other cases; interference by persons not parties to the contract is not to be tolerated.

“6th. Operators ought not in any manner to combine against persons who belong to the Miners’ and Laborers’ Benevolent Association. Any operator who refuses to employ a person because he is so connected, or who shall discharge him for that reason, would thereby give good grounds for censure and for other members to refuse to work for him.

“7th. No member of the Miners’ and Laborers’ Benevolent Association ought to be deprived of work because of his being selected by his branch to perform the duties mentioned in section 3, article 16, of the by-laws of

that association, if his duties are performed in the manner therein mentioned.

"5th. In regard to the right claimed by the miners to cease work when they see cause, whether in a body or otherwise, it is impossible to lay down any rule, and I am not aware that it is expected of me to do so; but I may be allowed to recommend that, after resumption again takes place, and business is again moving in its accustomed channel, that immediate steps be taken to provide for the adjustment of difficulties, if any shall arise in future, before they reach the disastrous proportions of those which now afflict, not only the laborers and operators, but the whole country.

"9th. Wherever it is stated in the foregoing report that an act is unlawful, is censurable, or ought not to be, it is to be understood in the same manner as if the umpire had awarded that such act shall not be done, nor allowed by either of the parties represented in this arbitration.

"WM. ELWELL.

"MAUCH CHUNK, April 19, 1871."

About the same time, the manner in which the question of wages should be submitted to the umpire was agreed upon, as follows, viz:

Articles of agreement made and entered into between the Anthracite Board of Trade and the Miners' and Laborers' Benevolent Association, on the 11th day of May, 1871.

"We agree to submit for the decision of the umpire, Judge Elwell, the question of wages for Schuylkill county, for the year 1871, as follows:

"*First.* The operators' proposition as made in Philadelphia, namely: Basis at \$2 50 at Port Carbon, with outside wages at \$9 per week; inside wages at \$10 per week; miners, by days' work, \$12 per week; contract work to be reduced $16\frac{1}{2}$ per cent. from present rates. The advance or decline of wages to be 1 per cent. for every 3 cents advance or decline in the price of coal, to be graded on the new prices thus formed. Wages not to be less than would be paid with coal at \$2 at Port Carbon.

"*Second.* The Miners' and Laborers' Benevolent Association's proposition: Three dollars at Port Carbon as a minimum, with wages as last year at that rate, namely: outside wages, \$11 per week; inside wages, \$12 per week; miners, by days' work, \$14 per week; advance to be 1 per cent. for every 3 cents advance in the price of coal.

"We agree to the reference of the above propositions under the following conditions and terms:

"1st. Each side to submit their proposition, with argument thereon in writing, to the umpire.

"2d. Men to resume work at all the collieries immediately, the wages to be paid in accordance with the decision of the umpire.

"*Third.* Prices shall be obtained from a list of all operators shipping over 20,000 tons of coal in 1870. Five operators shall be chosen from this list, by lot, on the 10th day of each month, (if Sunday, then the preceding day,) by four persons, two to be chosen by the Anthracite Board of Trade and two by the Miners' and Laborers' Benevolent Association. The operators so chosen shall forward to each side of the committee chosen as above, on or before the 15th day of the month, a statement of the average of all sales of coal for the thirty days preceding, calculated at Port Carbon. They—the committee—shall meet on the 15th of the month, (or if Sunday, then the preceding day,) and announce by circular the average obtained from the statements so presented, and the wages for the current month, shall be based upon the average so obtained. For the month of May, the operators to furnish prices shall be chosen on the 20th inst., and the prices shall be furnished and announced on the 25th instant.

"*Fourth.* Provision is hereby made for future arbitration in the following manner: 1st. All questions of disagreement in any district, excepting wages, which cannot be settled by the parties directly interested shall be referred to a district board of arbitration, to consist of three members on each side with power, in case of disagreement, to select an umpire, whose decision shall be final. No colliery or district to stop work pending such arbitration. 2d. If any question arises involving the whole county, a board of arbitration shall be chosen consisting of five members on each side, with the same rights and duties as district boards."

Signed on behalf of the parties hereto,

CHARLES M. HILL,

Secretary pro tem. A. B. of T.

WM. KENDRICK,

President A. B. of T.

GEORGE CORBETT,

Sec'y Sch'l Co. Ex. Board, M. & L. B. Ass.

JOHN W. MORGAN,

Pres't. pro tem., Sch'l Co. M. & L. B. Ass.

JOHN P. FRANCIS,

THOMAS LEONARD,

MICHAEL LAWLOR.

Committee.

THE DECISION OF THE UMPIRE ON THE QUESTION OF WAGES.

"The umpire mutually chosen by the Anthracite Board of Trade of the one part, and the Miners' and Laborers Benevolent Association of the other part, to decide the question of wages now at issue before them, having received and fully considered the written propositions and arguments

of the parties, has decided and established the basis and rates of wages below mentioned, as in his judgment just, both to the operators and the men in their employ, viz:

"Basis, \$2.75 at Port Carbon.

Miners by days work.....	\$13 00 per week.
Inside laborers.....	11 00 " "
Outside laborers.....	10 00 " "

"Contract work to be reduced ten per cent. upon the prices paid under the three dollar basis of 1869. Wages to be advanced one per cent. for every three cents advance in the price of coal at Port Carbon above \$2.75 per ton, and to decline at the same rate when coal is below that price down to \$2.25 per ton.

"The articles of agreement under which the submission was made, together with the agreements and statements of the parties laid before me, are hereto attached.

WM. ELWELL,
Umpire."

POTTSVILLE, *May 17, 1871.*

HIGHEST POSSIBLE ACTUAL AVERAGE EARNINGS UNDER THESE TERMS.

The highest possible actual average annual earnings under this proposition, calculated on our basis of average time of working of collieries would be as follows:

Miners by contract, 216 days, at \$3 25	\$702 00
Miners by wages.....do..... 2 16.6	467 85
Inside laborers.....do..... 1 83.33.....	395 99
Outside laborers.....do..... 1 66.66	359 98

BROKEN FAITH ON THE PART OF THE WORKMEN.

Upon the announcement of Judge Elwell's decision it was supposed that the trouble was over; the collieries all got under way and there was general acquiescence in the justice of the award. About the middle of May work became general, and continued without interruption until some time in the month of September, at which time the loaders (inside laborers) of the Thomas coal company made a demand for an increase of wages equal to the basis rates for the year. This was a plain violation of the agreement, and, so far as is known, without excuse; yet that company not only acceded to it at once, but promised all the other workmen at the colliery that whatever the price of coal and consequent wages should be, they would, at the end of the year, make the wages for the whole time equal to the basis. This violation of the agreement by the men and operators at

that colliery was followed by similar demands on the operators of other collieries, many of whom acceded, rather than stop work, while others protested and appealed to the officers of the W. B. A.; but the break had become too general, and they had to confess that they could not control it. The result was that the operators had to yield and agree that there should be no further reduction during the year. This action on the part of the workmen was regarded by many of them with a deep sense of shame and dread of its consequences; but the demand was yielded to so precipitately that the mischief was done before the better class could make their influence felt.

PRICE OF COAL AND AVERAGE EARNINGS IN 1871.

The following table will show the prices of coal, and percentage above and below the basis, for each month after the settlement:

Month.	Average price.	Percentage.
May.....	\$2 93	6 per cent. advance.
June.....	2 61.33.....	4...do... reduction.
July	2 54 6	7...do.....do....
August	2 57.8	6...do.....do....
September.....	2 52.4	7.. do.....do....
October.....	2 72.8	basis.
November	2 62.5	do.
December.....	2 31.1	do.

This shows an average reduction below the basis of 2.25 per cent. for the eight months worked. In this time the average time worked could not exceed seven months of twenty-four days each. The following will show therefore an approximation to the actual average amount earned:

Miners on contract, 168 days, at 3 17.69.....	\$533 71
Miners on wages.....do..... 2 11.8	355 82
Inside laborers.....do..... 1 79.2	301 05
Outside laborers.....do..... 1 63	273 84
Boys inside.....do..... 88	147 84
Boys outside.....do..... 66	110 88

AGREEMENT FOR THE YEAR 1872.

Notwithstanding the failure, on the part of the men, to keep faith under the terms fixed upon by Judge Elwell, the evident chagrin of a very large portion of the workmen, at what they regarded as the very first violation of good faith on their part, was so great, that at the end of the year it was manifest that any attempt at a repetition would not be submitted to.

Therefore, on the sixth of January, 1872, the committees of the Anthracite Board of Trade and the Workingmen's Benevolent Association met, and came to an amicable agreement for a basis for the year, as follows, viz :

First. Wages to be fixed on a basis of \$2 50 per ton for coal, at Port Carbon, with outside labor at \$10 per week ; inside labor \$11 per week ; miners, by day's work, \$13 per week, and contract work at a reduction of $8\frac{1}{3}$ per cent. below the basis price at \$2 75 for 1871.

Second. All advance and decline to be at the rate of one (1) per cent., for every three (3) cents advance or decline in the price of coal, with the understanding that when coal reaches \$2 75 and upwards, the wages shall be the same as at the same prices of coal in 1871 : *Provided*, That wages shall not be less than the \$2 50 basis price for more than two months out of the year, and that those two months shall be between the first of April and December 31, and that in those two months the wages shall not be less than at a \$2 25 rate.

Third. Prices shall be obtained from a list of all collieries shipping over the Philadelphia and Reading railroad over thirty thousand (30,000) tons in 1871, and none shall be chosen a second time until the list is exhausted. Five operators shall be chosen by lot, from this list, on the first day of each month, (if Sunday, then the day preceding,) by four persons, two to be chosen by the Anthracite Board of Trade, and two by the Miners' and Laborers' Benevolent Association. The operators so chosen shall be required to forward to each side of the committee chosen as above, on or before the tenth of the month, a statement of the average of all sales of coal (excepting Pea coal) for the preceding month, calculated at Port Carbon. The committee shall meet on the tenth of the month, (or, if Sunday, then the day preceding,) and announce by circular the average obtained from the statements so presented, and the wages for the current month shall be based upon the average so obtained. For the month of January, it is agreed that wages shall be paid on the \$2 50 basis.

Signed at Pottsville, Pennsylvania, on the sixth day of January, 1872, on behalf of the parties hereto.

FOR THE A. B. OF T.
WM. KENDRICK,
J. K. SIGFRIED,
GEO. W. COLE,
J. L. NUTTING,
CHARLES M. HILL, JR.

FOR THE M. AND L. B. A.
JOHN J. WILLIAMS,
JAMES RYAN, JR.,
WM. J. M'CARTY,
MICHAEL FARRELL,
JNO. H. DODSWORTH.

In order that no causes of dispute should remain, that could be guarded against, the following resolution was unanimously adopted by the committees of the two organizations :

"WHEREAS, There have been some complaints about the unequal prices of powder and oil throughout the county :

"Resolved, That whenever difficulties occur on that question, it shall be the duty of the president of the Anthracite Board of Trade and the president of the Miners' and Laborers' Benevolent Association to investigate the matter, either in person or by deputy, and endeavor to have it amicably arranged."

Under this agreement work was continued quite steadily throughout the year. As per its terms the basis was paid in January, and the months of April and May determined upon as the two months in which wages might fall below the basis.

In the two months indicated for reduction, (April and May,) the wages were in each $8\frac{1}{4}$ per cent below the basis. The average price of coal (as reported in each month) for the year was \$2 14 $\frac{3}{10}$. On the 27th August, 1872, an agreement was signed by fifty-two firms that a minimum price should be fixed each month for coal sold to the line and city trade, below which none were to sell, and fixing penalties for its violation, and otherwise regulating the trade. The prices, as fixed from month to month for the remainder of the year, were as follows :

SIZES.	Octo-ber.	Nov-ember.	Decem-ber.	Aver-age.
Lump, steamboat and broken	\$2 75	\$2 75	\$2 75	\$2 75
Egg, stove and small stove	2 90	2 90	2 90	2 90
Chesnut, No. 1.....	2 00	2 00	2 25	2 06 $\frac{1}{3}$
Chesnut, No. 2.....	1 75	1 75	2 00	.....
Mixed for limeburners.....	1 75	.....	.....	.....
Pea	1 00	1 00	1 00	1 00

It will be seen that the prices fixed upon for the three months given above, for the three sizes of coal upon which wages were to be based, average \$2 57 per ton. This would show a small average above the basis, but as the line trade is comparatively a small portion of the consumption of the product, the only value of the reference is to show how very small the prices for shipment must have ruled to reduce the general average for the year as low as \$2 14 $\frac{3}{10}$. This year (1872) was about as full a year as to time of working as can be made. There were no general suspensions and fewer local stoppages from disputes than usual. The wages at the basis as agreed upon, and the highest possible actual average earnings, supposing no reduction to have taken place, and no advance, would be as follows, viz :

Miners on contract, 216 days, at \$2 97.92	\$643 50
Miners on wages.....do..... 2 16.60	467 85
Inside laborers .....do..... 1 83.33	395 59
Outside laborers .....do..... 1 66.66	359 98
Boys inside.....do..... 90.00	194 40
Boys outside.....do..... 67.50	145 80

ACTUAL AVERAGE EARNINGS, 1872.

As the deduction of $8\frac{1}{4}$ per cent. each for the months of April and May, shows an average deduction for the year, of 1.375 per cent., the following will be the actual average earnings, supposing the average time made to have been our estimate of nine months, of twenty-four days each, for the year:

Miners on contract, 216 days, at \$2 93.83	\$634 67
Miners on wages.....do..... 2 13.60	461 37
Inside laborers.....do..... 1 80.80	390 52
Outside laborers.....do..... 1 64.40	355 10
Boys inside.....do..... 88.80	191 80
Boys outside.....do..... <u>66.60</u>	<u>143 85</u>

AGREEMENT FOR 1873.

On the 18th of January, 1873, the committees of the two organizations met in Pottsville and arranged the basis for the year 1873, substantially the same as last year, except that wages were not to go below the \$2 50 basis.

Thus far in this year the business has progressed with little or no interruption, and the relations existing between employers and employees are in very strongly marked contrast with what they were six years ago. The universal testimony is, that a clearly marked and decided improvement has been effected in the character of the controlling influences among the workmen, and this is attributable almost entirely to their organization. It gives to the most intelligent and best intentioned their proper and legitimate influence; creates aspirations for personal improvement and growing self-respect, by educating all to be ambitious of something higher than a reputation for bold and reckless lawlessness, and by cultivating a desire for a higher and better standard of individual excellence; it gives direction in the right way to the superabundant vigor and vivacity of the youthful, while it presents such a front of quiet but forceful and irresistible opposition to the reckless and turbulent, that they are forced into reformation or removal. So fully are these facts recognized now, that very few well informed business men of the the county would be willing to see the organization abolished and a revival of the old conditions, and the numbers of such are growing smaller every year. It is true that the struggle has been disastrous to the business hopes of large numbers whose means were invested in the region, and that it has wrought changes, (conspicuously the rise of the "Philadelphia and Reading coal and iron company," with its rapid absorption of the lands and collieries) which many look upon with dread anticipations of remorseless monopoly in the future; but more and

LUZERNE COUNTY.

more every day will be recognized the fact that all these changes were the result of an attempt, resolutely and remorselessly persisted in, to maintain the old order of things in which the wage-worker was to count as nothing in the business economy of the region, was to come, on invitation of high wages, and go, when forced to low wages; in which his right to a voice in determining what his compensation should be, was to consist of his right to stop and take what was offered, or change from the fixed, resident citizen, to the condition of a nomadic wanderer in search of living employ; in short, in which the right to combine with his fellows to improve his condition should be denied him, and his attempts to exercise that right should be defeated at any cost.

 LUZERNE COUNTY.

What has been said of the causes and rise of the Workingmen's Benevolent Association in Schuylkill county will apply also to Luzerne and Carbon, except that the movement in the two latter began and culminated earlier. While Schuylkill and Northumberland, together with Columbia, seem to have become ripe for the movement just at the time when what may be said to have been experimental movements in the upper counties, had prepared the way for a more thorough, practical and benevolent organization than had hitherto been known. The great mining companies, also, by concert of action that enabled them to control, to a great degree, the issue of contests between employers and employed, did much to prevent the isolated conflicts and strikes that in Schuylkill and the other lower counties were so prolific of dissension, bitterness and disaster. The consequence was, as the figures we are about to present will show, that at the time the great movement we have been treating of in Schuylkill commenced, the condition of labor in the northern field was much better. The census tables give for Luzerne county, as follows, viz:

Total number of collieries returned.....	90
Total hands employed.....	28,016
Total men above ground.....	7,772
Total men under ground.....	16,589
Total boys above ground.....	1,670
Total boys under ground.....	1,985

The classification of workmen in Schuylkill county was based upon information derived from personal inquiry and very intimate knowledge of

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COMPARATIVE TABLE OF CENSUS RETURNS FOR ANTHRACITE COUNTIES.

In collieries so large as the average in Luzerne and Carbon, the number of persons who are called full time hands must be largely in excess of those in the smaller collieries of Schuylkill, Northumberland and Columbia. The statement of Mr. Sharpe, in the Appendix, gives the number at his colliery at 29. The outside and inside superintendents mentioned are taken to be breaker bosses and mining bosses, as they are not otherwise specified. He only gives the wages of the engineers, machine superintendent, stablemen, &c. These we put at his figures, and the rest we estimate at wages proportionate with the general estimate for collieries of the Luzerne county class. His statement would show 29 full time hands to every 322 employed. But as his colliery is a little larger than the average of all in the county—that being 311.3 hands to the colliery—we reduce the number of engineers by one to each colliery, making the total 28 instead of 29. The full time hands to be deducted in this county from the whole number of hands, with their pay, will therefore be as follows, viz:

2,520	2,115,000 00
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By deducting this amount from the total wages paid, it will be seen that the miners, laborers and boys receive..... \$11,154,206 00

And by deducting from the whole number given in the sensus, 28,016, the above 2,520 full time hands, we have 25,496 miners, laborers and boys to whom it is paid. Now, we assume that the proportions of the classes, and the wages represented as having been paid at Mr. Sharpe's colliery, as per his statement, presents a reasonably close approximation to the general average, in these respects, of collieries in his county, as also in Carbon. We are, therefore, governed by his figures in making the following table, except as to the wages of boys, which we are sure are too high inside, and too low outside to be accepted as a fair presentation of the average in the county. We make this first table up, with the contract miners daily earnings put at \$5 00, because that is the amount testified to, both by Mr. Sharpe and Mr. Waddell.

Rate per day	CLASS.	Numbers	Earnings of each class per day	Earnings of each class for year of 180 days, or 7½ months	Average yearly earnings per man
\$5 00	Miners on contract.....	7,810	\$39,050 00	\$7,029,000 00	\$900 00
2 77	...do...on wages.....	1,403	3,886 31	699,535 80	498 60
2 23	...do...laborers, (average)....	4,801	10,658 22	1,918,479 60	399 60
2 17	Laborers inside for company...	2,305	5,001 85	900,333 00	391 90
2 47	Mechanics and helpers outside,	1,052	2,598 44	467,719 20	444 60
1 75	Outside laborers, (ordinary)...	4,470	7,599 00	1,367,820 00	306 00
1 25	Boys inside.....	1,985	2,481 25	446,625 00	225 00
75	Boys outside.....	1,670	1,252 50	225,450 00	135 00
		25,496	72,527 57	13,054,962 60	.....

The table demonstrates the wages as given in Mr. Sharpe's and Mr. Waddell's evidence, as entirely too high for an average. It will be seen that the amount earned for the year is, at these rates, \$1,900,576 60, or about 27 per cent. too high, or rather, that much more than was actually paid. The year's work is put at 180 days, because we estimate 9 months of 24 days each as a full year's work; and inasmuch as all the collieries in this region lost two months by suspension in this year, except those of the two great companies alluded to in the paper on Schuylkill county, we reduce the time proportionately. As nine months is three-fourths of twelve months, seven and a half months, or 180 days, is three-fourths of ten months. Now, as the wages of the time-workers purport to be sworn abstracts from Mr. Sharpe's books, we cannot reduce them; but the daily earnings of con-

tract miners being only estimated by these witnesses, and their estimates being held by the miners themselves as being very greatly too high, it is manifest that the reduction must be made there alone. We, therefore, reduce the contract earnings by 27 per cent., and the following table furnishes its own evidence of approximate correctness. In this table we also include among the miners by wages, the mechanics and helpers, as from their pay they should rate as skilled workmen. Also, we throw together the miners' laborers, and company laborers, inasmuch as the difference in the rate of their wages is very trifling:

Rate per day....	CLASS.	Number	Earnings of each class per day...	Earnings of each class for census year	Actual avg. earnings for year...
\$3 65	Miners on contract	7,810	\$28,506 50	\$5,130,309 80	\$656 89
2 65	Miners on wages	2,455	6,505 75	1,170,838 71	476 92
2 20	Laborers inside, (average,).....	7,106	15,633 20	2,813,504 25	395 93
1 70	Laborers outside, (average,).....	4,470	7,599 00	1,367,590 86	305 94
1 25	Boys inside.....	1,985	2,481 25	446,550 16	224 96
75	Boys outside.....	1,670	1,252 50	225,412 22	134 98
Number and pay of miners and laborers..		25,496	61,978 20	11,154,206 00	
Number and pay of full time hands.....		2,520		2,115,000 00	
Totals of census tables.....		28,016		13,269,206 00	

This we think is very close to the truth, both from the manner in which it corroborates the testimony of the workmen themselves, (see Mr. William's letter, and the demonstration it furnishes of itself, that the wages could not have been higher than are here stated. If there is difficulty in reconciling the difference between the estimates so confidently given by the operators and these results, and if our figures fail to corroborate *them*, it must be borne in mind that the duty imposed here is as nearly as possible to present the *truth* as it is, and not as we would like it to be. It cannot be possible that more money was earned, and at higher wages than are given here for the census year, for the estimate of wages must be kept down so as to bring the earnings for the time that must have been worked within the amount that was actually paid. That the result thus necessarily reached is a *corroboration* of the workmen's assertions, is a fact for which we are not responsible; our duty going no further than to be sure that it is a *natural and truthful result, come to by honest inquiry and analysis.*

CARBON COUNTY.

The total collieries given in the census returns are.....	4
The total number of hands employed.....	1,214
Of these are men above ground.....	565
Of these are men under ground.....	425
Of these are boys above ground.....	44
Of these are boys under ground.....	180
The total amount wages paid.....	\$592,334 00

We deduct from these totals for full time hands the same as in Luzerne, viz :

4 Mining bosses, one each colliery, at \$1,500 00.....	\$6,000 00
4 Breaker bosses, one....do.....	1,200 00. 4,800 00
4 Machinery bosses, one..do.....	1,200 00..... 4,800 00
4 Carpenter bosses, one..do.....	1,000 00..... 4,000 00
8 Ticket bosses, two....do.....	675 00..... 5,400 00
24 Stablemen, &c., six ....do.....	675 00..... 16,200 00
64 Engineers, sixteen....do.....	825 00..... 52,800 00
112	94,000 00

Paid to 1,102 miners, laborers and boys..\$498,334 00

Rate per day....	CLASS.	Number.....	Earnings of each class per day..	Earnings of each class for year..	Actual avg. earn-ings for year..
\$3 65	Miners by contract.....	184	\$671 60	\$148,912 40	809 25
2 65	Miners by wages.....	57	151 05	33,491 92	587 57
2 20	Inside laborers.....	168	369 60	81,950 71	487 80
1 70	Outside laborers.....	469	797 30	176,773 71	376 91
1 25	Boys inside.....	180	225 00	49,887 00	277 16
75	Boys outside.....	44	33 00	7,318 26	166 30
No. and pay of miners, laborers and boys,		1,102	2,247 55	498,334 00	
No. and pay of full time hands.....		112		94,000 00	
Totals of the census returns.....		1,214		592,334 00	

COLUMBIA COUNTY.

After reflection it is considered best to preserve the same classification in all the remaining counties, as in those of Luzerne and Carbon, only reducing the number of full time hands in proportion to the difference in the size of the collieries.

The total number of collieries given, is..... 8

Do.....hands employed..... 2,303

Do.....men under ground..... 1,215

Do.....men above ground..... 735

Do.....boys..... 353

We deduct from the whole number of hands given, the full time hands, and their pay, as follows:

8 Mining bosses, one each colliery, at.... \$1,200 00..... \$9,600 00

8 Breaker bosses, one....do..... 1,000 00..... 8,000 00

24 Engineers, three.....do..... 780 00..... 18,720 00

24 Mechanics, three.....do..... 780 00..... 18,720 00

32 Stable men, &c., four...do..... 675 00..... 21,600 00

96..... 76,640 00

Total amount of wages paid..... \$771,958 00

Deduct pay of full time hands..... 76,640 00

Total amount paid to miners, laborers and boys..... 695,318 00

ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR CENSUS YEAR.

Rate per day....	CLASS.	Number	Earnings of each class per day...	Earnings of each class for year...	Actual avg. earnings for year...
\$3 00	Miners by contract	536	\$1,608 00	\$242,176 91	\$451 82
2 40	Miners by wages	167	400 80	60,363 58	361 45
2 14	Inside laborers.....	489	1,046 46	157,622 48	322 33
1 90	Outside laborers.....	662	1,257 80	189,433 79	285 15
86	Boys.....	353	303 58	45,721 24	129 52
No. and pay of miners, laborers and boys,		2,207	4,616 64	695,318 00	
Number and pay of full time hands.....		96		76,640 00	
Totals of census returns.....		2,303		771,958 00	

In this calculation, we are compelled largely to reduce the rates of wages below either the upper counties or Schuylkill. At this rate the time worked is only a little over 150 days, or six months and six days. All the information we have puts the conditions here the same as Schuylkill. By shortening the time worked we can increase the wages, but there is no reason known here why any other arrangement of the figures would not be further from the truth than this.

DAUPHIN COUNTY.

The census return gives for Dauphin county the following figures:	
Total collieries returned.....	5
Total number of hands employed.....	1,732
Do.....men above ground.....	416
Do.....men under ground.....	1,164
Do.....boys above ground.....	62
Do.....boys under ground.....	90
Total amount of wages paid.....	\$571,924 00

No union has existed in this county, the manager having been exceedingly popular with the workmen at the time the agitation for organization began, was able to wield sufficient influence with them to lead to their taking a vote on the question, as to whether they would form an association or not, and to the question being determined in the negative. The result was that while the struggle was in progress in Schuylkill and the work very intermittent, here there was no intermission, except for the causes that are unavoidable in all anthracite collieries; we must therefore estimate the time made in the census year at the maximum of 216 days or nine months of 24 days each. The census gives one more colliery than is known to this Bureau to have been in operation in this year, after such inquiry as we have been able to make. The mine inspector's report puts the number at four. The mining boss of the Williamstown colliery visited the Bureau in the summer, and his attention being called to the matter, corroborated this view and spoke very positively to the effect that the number of hands given was about twenty per cent. too high. Considerable knowledge on the part of the Bureau, of the region, leads us to adopt his view and take his figures. The error probably arises from the fact that during suspensions in Schuylkill county, large numbers of work-

men seek employment here, and the enumeration may have been made while such persons were here for a short time. The additional colliery has probably been one of the drifts where coal is mined for sale to the neighboring farmers, and which are only worked for short intervals and then only by one or two men without other than hand machinery, the wages of whom, if wages are paid, would not enter into the volume of the census return. We therefore, in making our table, reduce the number of men by twenty per cent., and the collieries to four.

We deduct from the whole number as follows:

4 Mining boses, 1 each colliery, at	\$1,200 00	\$4,800 00
4 Breaker..do...1....do....do.....	1,000 00	4,000 00
12 Engineers.....3....do....do.....	780 00	9,360 00
12 Mechanics.....3....do....do.....	780 00	9,360 00
32		27,520 00

Leaving as paid to miners, laborers and boys..... \$544,404 00

ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR CENSUS YEAR.

Rate per day....	CLASS.	Number.....	Earnings of each class per day...	Earnings of each class for year...	Actual avg. earnings for year..
\$2 30	Miners by contract	415	\$954 50	\$204,153 94	\$491 93
2 00	Miners by wages	129	258 00	55,181 04	427 76
1 83	Inside laborers.....	379	693 57	148,343 49	391 40
1 75	Outside laborers.....	309	540 75	115,658 35	374 29
75	Boys inside.....	90	67 50	14,436 90	160 41
50	Boys outside	62	31 00	6,630 28	106 94
No. and pay of miners, laborers and boys,		1,384	2,545 32	544,404 00	
Number and pay of full time hands.....		32		27,520 00	
Number deducted from census tables		316		.....
Totals of census tables.....		1,732		571,924 00	

NORTHUMBERLAND COUNTY.

It is claimed by the operators in this county that they have about fifty cents per ton advantage in the price of their coal, over the counties that only ship eastward, and that with the basis system, the workmen get their share of it. As there is no reason known why the correctness of this statement should be called in question, and as reference to the comparative table in the article on Luzerne shows the amount paid each person to have been \$47 78, or about 12.5 per cent. greater than in Schuylkill, and as we know the two counties worked and suspended at the same time, and in sympathy with each other, we add that amount to the wages in making up this table. The census gives the following figures:

Total number of collieries.....	27	
Total number of hands employed	3,839	
Total number of men above ground	1,142	
Do.....do ...under...do.....	2,010	
Total number of boys above ground.....	627	
Do.....do....under...do.....	60	
Total amount of wages paid.....	\$1,652,953 00	
We deduct 27 inside bosses, 1 each colliery, at..	\$1,200 00	\$32,400 00
Do... 27 assistant do. 1...do.....do....	675 00	18,225 00
Do... 27 breaker do. 1...do.....do....	1,000 00	27,000 00
Do... 70 engineers ... 3...do.....do....	780 00	54,600 00
Do... 70 mechanics... 3...do.....do....	780 00	54,600 00
<hr/> 221 <hr/>		<hr/> 186,825 00 <hr/>
Leaving amount paid to miners, laborers and boys	\$1,466,128 00	

The wages must necessarily indicate the length of time worked. In our classification and estimate of the wages here, we have a fraction less than 160 days, or six months and sixteen days over indicated. These tables will show, to any one caring to give them critical examination, that however they vary from the exact truth, they are not far enough wrong to be misleading.

NORTHUMBERLAND COUNTY.

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ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR CENSUS YEAR.

Rate per day....	CLASS.	Number.....	Earnings of each class per day...	Earnings of each class per year..	Actual average earn'gs pr. year,
\$4 20	Miners by contract.....	880	\$3,696 00	\$590,973 26	\$671 56
2 80	Miners by wages.....	274	767 20	123,671 63	447 70
2 40	Inside laborers.....	802	1,924 80	307,766 35	383 74
2 20	Outside laborers.....	975	2,145 00	342,975 47	351 76
1 20	Boys inside.....	60	72 00	11,512 34	191 87
90	Boys outside	627	564 30	90,228 95	143 90
No. and pay of laborers,miners & boys		3,618	9,169 30	1,466,128 00	
No. and pay of full time hands.....		221		183,825 00	
Total of census returns.....		3,839		1,652,953 00	

374 RECAPITULATION OF LABOR IN ANTHRACITE MINES.

We have prepared the following table, in some sort a recapitulation of the results reached in the foregoing pages. To those who feel the interest in the subject, and have the patience to study it, it cannot but be very instructive and suggestive. Even should the reader discover errors in it (which we cannot hope may not be found) it is confidently believed that it holds within itself the evidence of its near approximation to correctness. It will be used to enable us to classify and present the condition of labor in all the leading industries of the State, in all of which our information is meagre on those points, and in many, none at all, except general report. The difficulty of the work committed to us in this particular, can only be comprehended by a careful study of the figures presented here.

RECAPITULATION TABLE OF THE ANALYSIS OF RETURNS FOR THE ANTHRACITE COUNTIES.

COUNTIES.	CLASSES.	Numbers.....	Average daily wages.....	Average days worked.....	Total wages paid.	Actual average earnings for the year.....
Carbon.....	Full time hands.....	112	\$2 85	300	\$34,060 00	\$806 17
Columbia.....	do.....do.....	96	2 66	300	76,640 00	798 13
Dauphin.....	do.....do.....	32	2 87	300	27,520 00	890 00
Luzerne.....	do.....do.....	2,520	2 80	300	2,115,000 00	839 23
Northumberland.....	do.....do.....	221	2 81	300	186,825 00	845 36
Schuylkill.....	do.....do.....	819	2 84	300	698,880 00	853 33
Totals and general averages.....		3,800	2 80.6	300	3,198,865 00	841 80
Carbon.....	Skilled workmen.....	241	\$3 41	221.7	\$182,404 32	\$756 46
Columbia.....	do.....do.....	703	2 85	150.6	302,540 49	430 35
Dauphin.....	do.....do.....	544	2 23	213.8	239,334 98	476 72
Luzerne.....	do.....do.....	10,265	3 41	180.0	6,301,148 51	613 54
Northumberland.....	do.....do.....	1,154	3 86	160.0	713,614 89	618 41
Schuylkill.....	do.....do.....	6,181	3 52	152.5	3,318,922 47	537 04
Totals and general averages.....		19,087	3.41.8	169.8	11,677,995 66	580 37
Carbon.....	First class labor.....	168	\$2 20	221.7	\$81,950 71	\$487 80
Columbia.....	do.....do.....	450	2 14	150.6	157,622 48	322 23
Dauphin.....	do.....do.....	379	1 83	213.8	148,343 49	391 40
Luzerne.....	do.....do.....	7,106	2 20	180.0	2,813,504 25	305 93
Northumberland.....	do.....do.....	802	2 40	160.0	307,766 35	383 74
Schuylkill.....	do.....do.....	2,249	2 14	152.5	731,687 89	326 67
Totals and general averages.....		11,193	2 18.7	173.3	4,243,875 17	379 15
Carbon.....	Second class labor.....	469	\$1 70	221.7	\$176,773 71	\$376 91
Columbia.....	do.....do.....	662	1 90	150.6	189,423 79	286 15
Dauphin.....	do.....do.....	309	1 75	213.8	115,658 35	374 29
Luzerne.....	do.....do.....	4,470	1 70	180.0	1,367,590 86	303 94
Northumberland.....	do.....do.....	975	2 20	160.0	342,975 47	351 76
Schuylkill.....	do.....do.....	2,550	1 96	152.5	763,547 57	299 43
Totals and general averages.....		9,435	1 83.7	170.4	2,955,979 75	313 20
Carbon.....	Youth.....	224	\$1 15	221.7	\$57,205 26	\$255 38
Columbia.....	do.....	353	86	150.6	45,721 24	129 52
Dauphin.....	do.....	152	65	213.8	21,667 18	138 53
Luzerne.....	do.....	3,655	1 62	180.0	671,962 38	183 60
Northumberland.....	do.....	687	92	160.0	101,741 29	148 69
Schuylkill.....	do.....	3,980	86	152.5	323,736 07	131 00
Totals and general averages.....		9,051	83.2	168.3	1,421,433 42	157 04
Number and pay of employees.....		52,566	\$20.9	181.5	\$22,898,149 00	\$435 60
Deducted from census for Dauphin county.....		316			*84,664 00	
Total number given in census report.....		52,882			22,982,813 00	

* Amount credited to Allegheny and Montour counties in census, evidently error.

LABOR IN THE BITUMINOUS COAL MINES.

The following shows the census returns for each of the counties producing bituminous coal, given as a comparative table:

COUNTIES.	No. of collieries.....	Product in tons.....	Total amount wages paid	Total hands employ- ed	Men underground..	Men above ground..	Boys underground..	Boys above ground..	Product in tons per colliery	No. of hands per col- liery	Product in tons per hand	Wages paid per hand	Wages paid per ton..
Allegheny.....	66	2,625,431	83,504,168	6,086	4,900	1,082	104	.....	39,931	92.2	433	\$575.77	\$1.33
Armstrong.....	11	186,465	163,300	312	248	16	48	.....	16,951	28.4	598	529.80	88.6
Beaver.....	16	28,020	27,750	83	70	12	1	.....	1,751	5.2	338.8	334.34	98.7
Bedford.....	6	115,200	94,010	232	231	21	.....	.....	19,200	42	457.2	373.05	79
Blair.....	6	161,850	81,500	191	162	29	.....	.....	26,975	31.9	847.3	426.70	50.4
Bradford.....	2	350,000	560,000	750	700	50	.....	.....	173,000	37.5	466.6	746.66	1.60
Butler.....	46	63,118	57,307	149	143	6	.....	.....	1,372	3.3	423.6	384.61	90.8
Cambria.....	3	244,298	287,857	527	471	56	.....	.....	81,432	175.6	463.5	546.27	1.17
Centre.....	7	184,456	145,978	302	253	39	10	.....	26,351	43	610.7	483.37	79.1
Clarion.....	9	55,540	41,570	103	97	6	.....	.....	6,171	11.4	539	403.59	74.8
Clearfield.....	11	181,237	147,903	279	251	21	7	.....	16,476	25.4	649.6	530.11	81.9
Elk.....	2	78,779	78,920	142	100	13	.....	.....	39,389	71	554.9	555.77	1.00
Fayette.....	22	453,580	207,321	477	395	172	20	9	41,234	21.7	950.9	560.42	58.9
Huntingdon.....	7	163,693	175,014	334	195	139	.....	.....	23,385	47.8	499	523.90	1.06
Indiana.....	23	38,082	25,510	108	60	45	3	.....	1,655	4.7	352.6	236.20	67
Jefferson.....	3	3,092	1,540	8	8	.....	.....	.....	1,031	2.8	386.5	192.50	49.8
Lawrence.....	11	129,810	190,335	245	197	48	.....	.....	11,801	22.3	529.8	776.88	1.46
Lycoming.....	1	2,003	2,209	30	20	10	.....	.....	2,000	30	66.6	73.33	1.10
M'Kean.....	1	21,953	36,000	60	40	20	.....	.....	21,953	60	330.9	600.00	1.63
Mercer.....	34	659,875	1,130,827	1,994	1,732	258	4	.....	19,408	58.6	260.4	146.60	56.3
Somerset.....	11	6,510	3,615	25	22	3	.....	.....	591	2.3	435.9	386.20	88.6
Tioga.....	3	733,562	650,000	1,683	1,375	308	.....	.....	244,521	561	335.4	472.40	1.40
Venango.....	11	36,230	51,020	108	97	11	.....	.....	3,293	9.8	100	100.00	1.00
Warren.....	1	200	200	2	2	.....	.....	.....	18,892	38.6	489.5	470.13	96
Washington.....	27	510,077	489,880	1,042	790	129	123	.....	39,760	82	484.6	500.12	1.03
Westmoreland.....	19	755,460	779,690	1,559	1,357	187	5	.....	.....	.....	.....	.....	.....
.....	.....	7,798,518	8,905,495	16,851	13,836	2,681	325	9	.....	.....	.....	.....	.....

It will be seen by an examination of this table that in some of the counties, the amount produced and wages paid are so exceedingly small that they serve as a demonstration that they are not the exclusive business of those engaged in coal mining in them; these counties are, more prominently than others, Indiana, Jefferson, Somerset and Warren. Lycoming would belong to the same class, if there is no error in the return, but as there is well known to be a very large colliery at Ralston, there is evidently clerical error in making up the tables. We throw out Lycoming then, along with those named above, in making our classification and averages, to show actual earnings for the year in this industry. The following five returns have been received from operators in the western bituminous field, upon which, and the sworn evidence of the miners at Pittsburg, together with the statement of the workmen taken in Fall Brook, Tioga county, we will mainly base our estimates of the actual average earnings.

Joseph Turnbull, miners.....	28.....	at \$4 50 per day, 9 months.	
Do.....do....drivers.....	2.....	3 25 do. 9 do.	
Do.....do....laborers outside...2.....	2 75 do 11 do		
Do.....do....one hand at \$60 00 per month, 12 months in year.			
James Rutherford, bosses.....	2.....	at \$3 00 per day.	
Do.....do....miners.....	34 }	at 4 00 do.	
Do.....do....boys	5 }		
Do.....do....pit driver	1, at —	do.	
Do.....do....tipple men, &c.....	3, at 2 75	do	
Lewis, Bailey, Dalzell, & Co., bosses.....	1, at 4 50	do.	
Do.....do.....do....miners.....	69, at 2 44	do.	
Do.....do.....do....drivers & laborers inside, 10, at 2 87		do.	
Do.....do.....do....brakemen	4, at 1 87	do.	
Do.....do.....do....teamsters and outside laborers	6, at 2 00	do.	
Do.....do.....do....trappers, boys	2, at 50	do.	
Negley & Co., bosses and superintendents.....	2, at 3 25	do.	
Do.....do....miners.....	92, at 3 56	do.	
Do.....do....pit drivers, &c.....	20, at 2 50	do.	
Do.....do....brakemen.....	3, at 2 33	do.	
Do.....do....teamsters and laborers	11, at 2 00	do.	
Do.....do....trappers, boys.....	3, at 75	do.	
Hartley & Marshall, bosses.....	2, at 3 00	do.	
Do.....do....miners.....	120, at 3 50	do.	
Do.....do....pit drivers, &c.....	10, at 2 50	do.	
Do.....do....teamsters and outside laborers ..	3, at 2 25	do.	
Do.....do....trappers, boys.....	4, at 60	do.	
Do.....do....engineers.....	2, at 2 00	do.	

The return of Mr. Joseph Turnbull, of Fayette City, was in the matter of wages, so much in excess of any other, that it was supposed to be an inadvertent error, and he was addressed a second time calling attention to it. The following is his reply :

FAYETTE CITY, NOVEMBER 8, 1873.

SIR:—My last report was as near the truth as I can make it. The facts are as follows: For each month of 1873, January and February, \$2 50 per day; March and April, \$2 75 per day; May, June and July, \$3 00 per day; August, September and October, \$3 25 per day.

Yours, &c.,

JOSEPH TURNBULL.

Mr. Turnbull gives as the time made in a year by miners and drivers, 9 months, (which we put at 24 days each); outside laborers 11 months; one hand at \$60 per month, full time.

Lewis, Bailey, Dalzell & Co.—all the year, holidays and unforeseen accidents excepted. This cannot, in all likelihood, be more than 11 months of 24 days each.

James Rutherford—9 months average in the year.

Hartley & Marshall—bosses constantly employed; average for remainder, 250 days—about ten months and a half.

George Archbold in his evidence at Pittsburg, in answer to questions put by the deputy commissioner, puts the proportion of wage-workers to the whole, exclusive of boys, at about 10 per cent.—about four boys to the hundred hands average.

Average wages of contract miners, from \$2 to \$2 50 per day, or \$25 to \$30 per pay of two weeks, at 4 cents per bushel rates.

Average drivers' wages, \$2; pit drivers, \$2; boys, from 50 cents to 75 cents per day.

Eli Enscoe, (also of Pittsburg evidence,) puts the average wages in the bank where he works, \$2 50 per day for 8 or 9 months, 12 hours per day.

William Chalmers (same.) "The mines where I work employ 120 hands. Of these, are 6 drivers, 3 trimmers, 1 is weigh-boss, 1 tippelman, 1 roadsman, 1 pit boss, 1 check-weigh master, 2 blacksmiths, 1 carpenter and one boy greasing wagons—in all, 18; average earnings of contract miners, not exceeding \$2 50 per day. Average will be nearer \$2 25; for day-workers, from \$3 down to \$2; in some cases as low as \$2 00, and even \$1 75 per day."

The workmen at Fall Brook, Tioga county, gave the deputy commissioner the following figures :

To every 100 men there would be about the following proportions of of each class, with the wages given opposite:

Drivers	14	.....	from \$1 25	to \$1 80	per day.
Dumpers	6	.....	1 62½	do.	
Slate pickers	3	.....	from 1 37½	to 1 50	do.
Of other hands at colliery					
Repairing roads	2 men	.....	at	2 00	do.
Carpenter	1 man	.....	at	2 00	do.
Blacksmith	1 man	.....	at	2 00	do.

This is about the average for the last five years, except they are about 5 per cent. lower than in 1870.

We are paid 55 cents a ton for mining coal, and the operators claim five tons for a days work on the average, but men make more frequently less than more.

The result of these statements would be about as follows:

For the western part of the State, we take the statements of the operators, somewhat modified by those of the workmen in the evidence given at Pittsburg. This is rendered the more appropriate from the fact that in the answer to the inquiry made of Mr. Turnbull, it is indicated that these returns show the highest earnings made by any, and *not* in any just sense an average; for instance, in his return, pit drivers, whom we put in our classification among first class unskilled labor, are given as receiving \$3 25 per day, while in his answer to our second application he shows the average to have been, at his own figures, \$2 86 per day. Now if this is to be taken as the conception of the operators, of what constitutes *average wages*, it is certainly no violent assumption to conclude that the very flattering rates given, are the rates paid to the highest earners, at the exceptionally highest times in the year. If, therefore, we examine their statements in the light of the sworn statements of the workmen, estimating each at its apparent value, and striking an equitable *mean* between the two, we will probably not be far wrong.

It will be seen, also, that the cost in wages per ton of coal varies considerably between the counties favorably and unfavorably situated for shipping, and it is believed that while some of this difference is attributable to the more favorable conditions of the seams in some places than in others, yet that *more of it grows out of lower prevailing rates of wages in the regions less favorably located for market*. We, therefore, modify the rates in the Pittsburg region as given in the operators' return, by the sworn statements of the workmen there, and take that average for the rates in all counties in which the cost per ton in wages is \$1 or more; while in those in which it is less than \$1, we reduce the rates so found by one-half of the percentage of average difference. Thus, there are ten counties in which

the cost per ton in wages equals or exceeds \$1 per ton and these will show a general average of cost in wages of \$1 33.8 per ton, while there are eleven counties in which the cost is less than \$1 per ton in wages, and these show a general average of 90.3 cents per ton. The remaining five counties are left out for reasons already given. Now, without confusing our statement by multiplying figures here, showing the calculations, we present at once a table showing the classification, average daily earnings, and earnings for the year of each class, with actual average earnings of each person for the year, leaving those who care to do so to test their correctness upon the basis explained above :

ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR CENSUS YEAR.

Rate per day....	CLASS.	Number	Earnings of each class per day..	Earnings of each class for year..	Actual avg. earnings for year..
\$3 00	Bosses, &c., full time hands.....	826	\$2,478 00	\$743,400 00	\$900 00
2 50	Skilled workmen	12,883	32,207 50	7,043,329 03	546 71
2 00	Laborers, first class	1,652	3,304 00	722,538 73	437 37
1 75	Laborers, second class	1,156	2,023 00	442,402 10	382 70
60	Boys.....	334	200 40	43,825 14	132 21
Totals of census returns.....		16,851	40,212 90	8,995,495 00	.....

There can be but little doubt that this table approximates very closely the real average wages for the whole twenty-six bituminous coal counties in the census year. In some localities they rule higher—in some lower. In very few, however, of localities or trades, are quoted wages ever realized as averages, the tendency being on the part alike of employer and employed to over-state rather than under-state them. This fact furnishes the reason why, when we attempt to reconcile the quoted wages with the reasonably estimated time worked, and the amount actually paid, it is found necessary to reduce the quoted rates to bring the earnings for the time within the limit of the amount. In the estimate for the bituminous fields, the full time hands are given as having been employed 300 days in the year; while at the rates adopted for the others there is only 218 days and a small fraction over. The results reached in these industries indicate the following general averages of earnings for the year; being a general average of the classification and earnings of all the coal counties :

MINING OTHER THAN COAL.

CLASSIFICATION AND AVERAGE EARNINGS IN ALL COAL MINING.

CLASS.	Number	Percentage of the whole.....	Avg. days worked	General average earnings
Full time hands.....	4,626	6.7	300	\$852 19
Skilled workmen	31,970	46.0	185.9	566 82
First class laborers	12,845	18.5	178.7	386 64
Second class laborers.....	10,591	15.3	175.5	320 87
Boys.....	9,385	13.5	169.6	156 12
	69,417			

MINING OTHER THAN COAL.

In the mining of the following productions, it has not been in the power of the Bureau to obtain definite information, in the way of returns, and we must base our estimates on a few personal inquiries and common report; the census gives the following figures:

RETURNS FOR MINING OTHER THAN COAL, FROM CENSUS.

PRODUCT.	Number of establishments.....	Total hands employed.....	Men above ground	Men under ground	Boys above ground	Total wages paid..	Product in dollars,
Copper	2	7	7	.....	.....	82,640	7,800
Iron ore	186	4,886	2,551	2,139	196	2,051,345	3,944,146
Marble	6	86	86	.....	.....	39,320	101,000
Nickel	1	48	26	.....	22	6,400	24,000
Petroleum	2,148	4,070	4,070	.....	.....	3,797,818	18,045,967
Slate	28	732	731	.....	1	325,447	618,229
Stone.....	126	1,114	1,112	.....	2	446,277	873,879
Zinc.....	1	400	180	180	40	167,721	235,555
	2,498	11,343	8,763	2,319	261	6,836,968	23,850,576

In this statement it will be seen that the earnings in the production of petroleum exceed more than twice those in the other products noted.

Upon application to the Hon. A. L. Campbell, of the House of Representatives, whose large experience in this pursuit enables him to speak with authority on the subject, we were informed that the wages paid in the oil operations are largely in excess of any other occupation in the region, and that the returns undoubtedly present a correct statement of the facts. He estimates the number of foremen at wages at about one to every two

wells throughout the region with wages from \$3 50 to \$5 per day; skilled workmen, drillers, tool dressers, engineers, &c., wages from \$3 to \$4 50 per day, and laborers from \$2 25 to \$3 50 per day; the two latter classes about equally divided in numbers. We, therefore, give the following as our classification, wages and earnings, based upon his information:

ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR CENSUS YEAR.

Rate per day....	CLASS.	Number	Daily earnings of each class	Earnings of each class for year..	Act. annual earnings for year..
\$4 25	Foremen	1,074	\$4,564 50	\$1,279,109 67	\$1,190 97
3 50	Skilled workmen	1,498	5,243 00	1,469,246 53	980 80
2 50	Laborers, first class	1,498	3,745 00	1,049,461 80	700 57
Total of census tables		4,070	13,552 50	3,797,818 00	.....

The seven remaining mining industries are so nearly alike in the amount of annual earnings, (with the exception of nickel, which is so small in volume as not to affect materially the general average,) that in the absence of definite information, we are not inclined to multiply figures to no good purpose, and therefore present them all in one table, under the same general proportions as have been adopted in coal mines:

ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR CENSUS YEAR.

Rate per day....	CLASS.	Number	Earnings of each class per day..	Earnings of each class for year..	Actual avg. earnings for year..
\$2 75	Foremen	510	\$1,402 50	\$307,249 33	\$602 25
2 25	Skilled workmen	2,900	6,525 50	1,429,557 78	492 97
1 75	Laborers, first class	1,797	3,144 75	688,937 87	383 38
1 45	Laborers, second class	1,805	2,617 25	573,375 45	317 65
70	Boys	261	182 70	40,029 57	153 37
Total of census tables		7,273	13,872 70	3,039,150 00	.....

As this is the conclusion of the consideration of mining industries, we give on next page a final recapitulation of the results reached, as follows:

MANUFACTURING INDUSTRIES.

RECAPITULATION TABLE OF ALL MINING INDUSTRIES.

CLASS.	Number	Percentage of the whole	Avg. days worked	Avg. daily wages	General average earnings for yr..
Foremen, &c.....	6,210	.8	289.33	\$3 08	\$891 06
Skilled workmen	36,368	.45	192.49	3 00	577 98
Laborers, first class	16,140	.20	194.12	2 14	415 41
Laborers, second class	12,396	.15	180.7	1 77	320 40
Boys.....	9,646	.12	173	90.4	156 05
	80,760				
	*316				
	†13				
	‡126				
Total of census table.....	81,215				

MANUFACTURING INDUSTRIES.

We now give tables showing all the returns received at the Bureau, together with the statements received (not written) on personal application. These returns are, as has been before remarked, very few in number, and valuable more as showing the necessity of such legislation as would enable the Bureau to secure them largely, than for the aid they furnish to the work they were intended to promote.

AGRICULTURAL IMPLEMENTS.

In this industry we have only received two returns, one from Chester and one from Dauphin counties.

The Dauphin county return is as follows, viz :

Foremen	3, at \$3 00 per day
Machinists	6, at 2 25 do.
Carpenters	8, at 2 25 do.
Moulders	2, at 2 00 do.
Blacksmiths.....	1, at 2 25 do.
Painters.....	1, at 2 00 do.
Brass moulders.....	1, at 2 80 do.
Laborers	3, at 1 50 do.
Engineers.....	1, at 2 25 do.
Apprentices and youth 13, average of	75 do.

* Number deducted from census return for Dauphin county.

† Number credited erroneously to anthracite collieries in Allegheny by the census return.

‡ Number credited erroneously in census return to anthracite collieries in Montour.

The return from Chester county is as follows, viz :

Foundrymen.....	2, at \$2 50 per day.
Blacksmiths.....	3, at 2 50 do,
Machinists	5, at 2 25 do.
Wood workers.....	6, at 2 25 do.
Painters.....	1, at 2 00 do.
Laborers	2, at 1 50 do.
Engineers	1, at 1 50 do.
Apprentices	2, at 75 do.

The only value of these returns would be to show the proportion of skilled to unskilled labor, and the prevailing rates of wages in these two somewhat widely separated localities.

The census gives the following figures for this industry, viz :

Number of establishments.....	286
Number of hands employed.....	2, 286
Number of men employed.....	2, 248
Number of youth employed.....	38
Total wages paid.....	\$1,025,618 00

In the returns we have given, we have reason to believe, that a very just and fair statement of the average in this State may be found. The census, it will be observed, gives all as men over sixteen years of age. In these trades there are very few boys go to learn their trades until they are sixteen, and consequently many of those enumerated as males above sixteen, are apprentices in all the stages between sixteen and twenty-one. For the purposes of this inquisition therefor, we take the proportions as shown in these returns, and present the following table as the result :

ACTUAL AVERAGE EARNINGS OF EACH CLASS FOR CENSUS YEAR.

Rate per day.....	CLASS.	Number.....	Earnings of each class per day...	Earnings of each class for year ..	Actual avg. earnings for year ..
\$3 00	Foremen.....	114	\$342 00	\$82,957 89	\$727 70
2 27	Skilled workmen	1,372	3,114 44	755,459 07	550 62
1 50	Second-class laborers.....	229	343 50	83,321 76	363 85
75	Boys, apprentices, &c.....	571	428 25	103,879 28	181 92
	Totals of census returns.....	2,286	4,228 19	1,025,618 00	.....

This calculation gives an average of a little over $242\frac{1}{2}$ days worked for the year, or 10 months and $2\frac{1}{2}$ days of 24 days each. This is believed to be about the real average time made. It will be observed that in the Massachusetts reports and also in the very excellent but rather *rose colored*

essay of Mr. Lorin Blodgett, which will be found in this report, that the quoted wages are treated to a great extent as averages, and that the short time worked that they indicate is attributed to "ease and choice," or love of leisure on the part of the workmen. This, all the information we have been enabled to gather leads us to regard as erroneous. The prevailing characteristic among workmen, on the contrary, is an anxiety to make the fullest time possible. That there are constitutionally worthless men—idlers from a slothful physical habit, or from the demoralization of drunkenness—is not to be denied; but to assume that these vices prevail to such a degree as to affect, in any appreciable sense, the average in a calculation like this, is certainly mistaken. In the inquiries instituted by the Bureau a good deal of attention was given to this special point, and the result would indicate that the idlers from these causes are about three in every one hundred workmen.

COTTON GOODS.

The two following very satisfactory returns have been received from cotton mills; the first from the Messrs. Garsed, of Frankford, and the other from the Harrisburg Cotton Mill Company. It is greatly to be regretted that business men engaged in this, as well as other industries, have not been able to see the ultimate good to be derived from this inquiry, or that the power and means had been placed at the disposal of the Bureau that would have enabled it to procure fuller returns:

First return.

Card room hands.....	1 boss.....	at \$3 00 per day.	
Do....do.....	1	at 1 66	do.
Do....do.....	3 frame tenders, (women,)....	at 1 33	do.
Do....do.....	4 helpers, (youth,).....	at 1 00	do.
Spinning room...hands,	1 boss.....	at 4 00	do.
Do....do.....do..	7 helpers, (youth,).....	at 65	do.
Weaving room....do..	1 boss.....	at 3 00	do.
Do....do.....do..	2 2nd bosses.....	at 2 33	do.
Do....do.....do..	64 weavers, (women,).....	at 1 42	do.
Beaming room ....do..	1 boss.....	at 3 00	do.
Do....do.....do..	3 beamers and twistors	at 2 16	do.
Do....do.....do..	1 helper, (youth,).....	at 50	do.
Cloth room .....do..	1 boss.....	at 3 00	do.
Do	1 assistant.....	at 2 16	do.
Do	1 assistant, (youth,).....	at 75	do.
Do	3 burlers, (women,).....	at 1 00	do.
Doubl'g & spool'g room,	1 boss.....	at 2 00	do.
Do	4 doublers, (women,).....	at 1 00	do.
Do\.....do....	10 spoolers and rulers, (women),	at 1 25	do.

MANUFACTURING INDUSTRIES.

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Dyers' room.....	1 boss	at \$3 00 per day.
Do.....	5 dyers and sizers.....	at 2 00 do.
Do.....	1 sizers' assistant, (youth,)....	at 1 50 do.

MISCELLANEOUS.

Engineer.....	1, at	2 33 do.
Driver.....	1, at	2 33 do.
Machinist.....	1, at	3 00 do.
Watchman.....	1, at	2 00 do.
General laborer.....	1, at	2 -00 do.
General helpers, (youth,)	3, at	50 do.

Second return.

Spinners.....	3 foremen.....	at 2 41 per day.
Do	8 women.....	at 1 05 do.
Do	91 youth.....	at 50 do.
Weavers.....	7 men	at 2 00 do.
Do	67 women.....	at 92 do.
Do	7 youth.....	at 50 do.
Carders	13 men	at 1 57 do.
Do	25 women	at 75 do.
Do	27 youth	at 62 do.
Dressers.....	2 men	at 2 45 do.
Do	1 woman.....	at 1 16 do.
Do	6 youth	at 50 do.
Engineers.....	2 men	at 2 66 do.
Packers.....	2 men	at 1 85 do.
Do	8 women	at 66 do.
Machinists.....	6 men	at 2 40 do.
Watchmen and laborers,	5 men	at 1 58 do.

As these are all the returns we have from this industry, we must use them as conclusive of the wages and classification. The census gives under the head of "cotton goods (not specified)" as follows:

Number of establishments.....	121
Do.....hands employed.....	12,281
Do.....males above 16	3,729
Do.....females above 15.....	5,965
Do.....youth.....	2,587
Total wages paid.....	\$3,386,248

These we classify as follows, under the guidance of the above returns, determining the average wages therefrom, rating *as bosses*, only those whose pay is \$3 per day and over, and putting the foremen at less than

that among the skilled workmen. It will be seen also that we put all over \$2 among the skilled workmen; those at \$2 as first-class labor, those below \$2 as second-class labor; the youth, all above 62 cents, and as children all below it. The result shows 228 days as the average year's work:

TABLE OF CLASSIFICATION, WAGES AND EARNINGS IN COTTON MANUFACTURES.

Rate per day.....	CLASS.	Number.....	Earnings of each class per day...	Earnings of each class for year...	Actual average earnings for year...
\$3 16	Foremen.....	298	\$941 68	\$214,529 79	\$719 89
2 37	Skilled workmen.....	1,007	2,386 59	543,702 80	539 92
2 00	Laborers, first class.....	746	1,492 00	339,900 26	455 63
1 60	Laborers, second class.....	1,044	1,670 40	380,539 68	364 50
1 09	Women.....	5,965	6,501 85	1,481,226 81	248 30
83	Youth.....	634	526 22	119,880 43	189 08
52	Children.....	2,587	1,345 24	306,468 23	118 46
Totals of census tables.....		12,281	14,863 98	3,386,248 00	.....

CARPENTERING AND BUILDING.

In this industry we have but one return, that of Mr. Ezra Cockill, Sr., of Schuylkill county, an extensive breaker builder and house carpenter. It is as follows:

Number of foremen..... 4, at \$3 00 per day.

Number of carpenters..... 40, at 2 50 do.

The classification that Mr. Blodgett speaks of in his essay before alluded to, would be invaluable in its application to the object we have in view. In the absence of anything of the kind, we must substitute for it, for this year, estimates based upon the best data attainable. The above return of Mr. Cockill gives one foreman to every ten skilled workmen. He does not give any statement of the number of unskilled workmen who operate in conjunction with these, or who are a part of them, as helpers, and of whom there are always some employed. Mr. Blodgett puts the wages in Philadelphia at from \$2 to \$3 per day for carpenters. As we cannot believe, and do not think any one else believes, that any skilled carpenters work in Philadelphia at the lowest of these figures, we put those who receive that rate, and are reckoned among the numbers of carpenters, down as these unskilled workmen, or, as we classify them, first-class laborers. Careful inquiry and observation leads us to put this class of workmen in this trade at the same proportion as foremen to the whole, viz: 10 per cent. The wages will also have to be reduced somewhat below Mr. Blodgett's estimate, and Mr. Cockill's, to show an average for the whole State, inasmuch as the rates of wages generally in Philadelphia and Schuylkill range higher

than in localities where the industries are not so diversified and extensive. For instance, in the coal region of Tioga the wages of carpenters and blacksmiths are quoted at \$2, and Hon. Mr. Burkholder, of Lancaster, informs us that as many, if not more, carpenters, machinists and blacksmiths are employed at less than \$2 per day as there are who receive that much.

We estimate, therefore, the average wages for foremen in this trade, all over the State, at \$2 75 per day; skilled workmen \$2 25, and first class laborers at \$1 87.

Our table then will stand thus: The census gives—

Number of establishments.....	1,846
Do.....hands employed.....	10,538
Do.....males above 16.....	10,436
Do.....youth.....	102
Total amount of wages paid.....	\$5,335,181 00

We estimate also, that at least 10 per cent. of the whole number are apprentices, the youth under 16, not being more than a very small portion of the whole number.

This calculation shows 239.7 days worked, on the average for the year:

CLASSIFICATION, WAGES AND AVERAGE EARNINGS.

Rate per day.....	CLASS.	Number.....	Earnings of each class per day....	Earnings of each class for year..	Actual avg. earnings for year ..
\$2 75	Foremen.....	1,053	\$2,895 75	\$694,133 51	\$659 19
2 25	Skilled workmen.....	7,379	16,602 75	3,979,823 71	539 34
1 87	Laborers, first class.....	1,053	1,969 11	472,010 49	448 25
75	Apprentices, &c.....	1,053	789 75	189,213 29	179 68
Totals of census returns		10,538	22,257 36	5,335,181 00	.....

CARRIAGE BUILDING.

The operatives in this industry, we divide into five principal classes, viz: Wood-workers, blacksmiths, painters, trimmers and laborers; among the latter, are included blacksmiths' helpers, porters, filers, &c., whose rate of pay, as compared with the former, would indicate that they are not skilled workmen. The names of those making the returns are not inserted, but instead, the number of the blank which was put upon it, in the order in which it was received.

MANUFACTURING INDUSTRIES.

TABLE OF RETURNS RECEIVED.

Number of blank,	Total No. of hands,	No. of foremen ...	Daily wages,.....	No. of woodwork's	Daily wages,.....	No. of blacksmiths	Daily wages,.....	No. of painters,....	Daily wages,.....	No. of trimmers ..	Daily wages,.....	Laborers, helpers, & other unskilled hands	Daily wages,.....	No. of apprentices,	Daily wages,.....
5	101	2	\$5 00	24	\$3 30	8	\$4 00	18	\$2 75	14	\$2 75	19	\$1 95	16	\$0
6	12	...	...	2	\$2 59	3	\$2 50	2	\$2 50	1	\$2 25	...	...	5	\$0
7	12	...	...	2	\$2 50	4	\$2 50	2	\$2 50	1	\$2 50	...	...	3	\$0
8	36	1	3 00	2	\$2 50	11	\$2 25	5	\$2 25	5	\$2 25	...	...	7	\$0
15	13	...	...	4	\$3 25	12	\$3 00	3	\$2 50	1	\$3 50	...	...	3	\$0
Avg's	175	3	4 33	39	\$3 07	28	\$3 17	30	\$2 61	22	\$2 64	19	\$1 95	34	\$2

These returns are all from the localities where wages rule the highest in this trade, Philadelphia, Pottsville, Harrisburg, and Mount Joy in Lancaster county; that they are too high to be taken as an average for the State, is evident from the fact, that at this rate only an average of 149.2 days could have been worked in the year. To those familiar with this industry, the knowledge of this fact will be sufficient demonstration of the necessity of reducing the estimated rates very far below these returns, to give any thing like a true average. In the table below, however, the reduction is so great that it requires some explanation. This is not an industry that depends at all upon weather, the operations being always carried on in shops, nor are there any special seasons in which business is active—on the contrary, its operations run quite evenly throughout the whole year. There is then, no loss of time except from sickness, dissipation, or change of employ from one shop to another. We cannot fairly reduce the time estimated to be worked in the year below a nine months' average, but it will be seen that even at the rate adopted below, there is only an average of 220 days worked in the census year. The census gives the following figures:

Total number of establishments returned.....	1,449
Do.....do.... hands employed.....	6,252
Do.....do.... males above 16.....	6,199
Do.....do.... females above 15.....	5
Do.....do.... youth.....	48

In our calculations we include the females among the youth, because we have not, and cannot get any information as to the proper classification to make of them, and because the wages usually paid to women conform more nearly to those paid to youth than to men.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS.

Rate per day....	CLASS.	Number.....	Earnings of each class per day..	Earnings of each class for year..	Actual ave. earnings for year..
\$2 50	Foremen	125	\$312 59	\$68,750 00	\$550 00
1 90	Skilled workmen	4,251	8,076 90	1,776,847 43	417 98
1 50	Laborers	688	1,032 00	227,031 70	329 98
60	Apprentices, &c.....	1,188	712 80	156,811 85	131 90
Totals of census tables		6,252	10,134 20	2,220,441 00	.....

CARS—FREIGHT AND PASSENGER.

The only return received of this industry is that of the Harrisburg Car manufacturing company, whose enlightened and public spirited manager responded promptly to the application. The return is as follows:

Foremen.....	16, at \$3 00 per day.
Blacksmiths.....	53, at 2 25 do.
Moulders.....	35, at 2 10 do.
Do....apprentices	7, at 1 00 do.
Machinists	30, at 2 25 do.
Do....apprentices	10, at 1 00 do.
Pattern makers.....	4, at 2 38 do.
Do....apprentices	1, at 1 00 do.
Carpenters	230, at 2 00 do.
Do....apprentices	5, at 1 00 do.
Painters	17, at 2 00 do.
Do....apprentices	13, at 75 do.
Laborers.....	375, at 1 50 do.

The census returns give in this industry the following:

Total number of establishments.....	49
Do....do....hands employed.....	4,076
Do....do....males above 16.....	3,975
Do....do....females above 15.....	14
Do....do....youth.....	87
Total wages paid.....	<u>\$2,193.857 60</u>

In all these tables we classify the workmen substantially, according to the returns received. Thus, in this the foremen are 2 per cent., the skilled workmen 46 per cent., laborers 47 per cent. and apprentices 5 per cent. of the whole. Here again are 14 women returned. It is presumable that they are employed about the upholstering. But as we have no data to go upon in regard to them, we classify the whole as above.

The table then is as follows:

CLASSIFICATION, WAGES AND AVERAGE EARNINGS.

Rate per day....	CLASS.	Number	Earnings of each class per day..	Earnings of each class for year..	Actn alayc. earnings for year..
\$3 00	Foremen.....	81	\$243 00	\$74,209 37	\$916 16
2 07	Skilled workmen.....	1,875	3,881 25	1,185,277 10	632 15
1 50	Laborers.....	1,916	2,874 00	877,677 94	458 08
91	Apprentices.....	204	185 64	56,692 59	277 90
Totals of census returns.....		4,076	7,183 89	2,193,857 00	.....

According to these rates of wages and classification, the average time worked for the year in this industry was a little over 305 days. This is very full time, and would seem to indicate that the average wages should be a little higher. But inasmuch as the difference would not be great, and as we desire to leave the wages as near the rates returned as a fair regard for probabilities will admit, we will not disturb them.

CLOTHING.

We have received from this industry but one return, and that from Philadelphia. We give it as follows:

Number of tailors..... 10, at \$3 50 per day, 9 months in the year.
 Number of tailoresses..... 10, at 2 00..do.....9....do.....do.....

This return is accompanied by the following remarks:

"The manufacture of clothing 'to order' is done by having the materials cut at the establishment and given to men and women foremen, who have others to do the work, foremen making from \$6 to \$7 per day and their hands \$2, but the table is made to show the production of our labor employed singly."

If the above return is true, and a true presentation of the condition of the employees in this industry, the general representations made are outrageously false and mischievous. It was the earnest desire of the Chief of the Bureau that this should be made a special inquiry, but the character of the legislation under which we acted was so ineffective, the means at our disposal so very small, and the indisposition to submit to the inquiry voluntarily so palpable, that the effort had to be abandoned. It was the more desirable to investigate the condition of labor in this large branch of industry, because in it female labor is very largely employed, and, it has been especially charged for years, with oppressive exactions and inadequate compensation. The most we can do under the circumstances, for this year, is to

submit it to the same test that we have applied to other industries, trusting that the importance of inquiry, indicated by our approximations, may impress the Legislature with the necessity for more efficient legislation.

We include in these analysis all the divisions in the census under the head of clothing, showing first the results of a table with wages rated according to this return, and of one reduced to the requirements of probable average time worked. The census gives as follows, under head of clothing :

Establishments, children.....	12
Do.....do.....total hands.....	114
Do.....do.....males above 16.....	38
Do.....do.....females above 15.....	76
Do.....do.....youth.....	—
Do.....do.....total wages paid.....	\$36,700 00
Establishments, men.....	1,364
Do.....do.....total hands.....	17,973
Do.....do.....males above 16.....	7,781
Do.....do.....females above 15.....	9,917
Do.....do.....youth.....	275
Do.....do.....total wages paid.....	\$4,758,807 00
Establishments, women.....	162
Do.....do.....total hands employed.....	1,049
Do.....do.....males above 16.....	83
Do.....do.....females above 15.....	939
Do.....do.....youth.....	27
Do.....do.....total wages paid.....	<u>\$244,765 00</u>

The grand total of all these will be as follows :

Total number of establishments.....	1,538
Do.....hands employed.....	19,136
Do.....males above 16.....	7,902
Do.....females above 15.....	10,932
Do.....youth.....	302
Total wages paid.....	<u>\$5,040,272 00</u>

As the same facts with reference to the youth reported in the census will hold good here as in other trades, viz: That they do not represent the number of apprentices; we, in our classification, allow about the usual proportion, 10 per cent., to be of that class. Now if the rates in the above return are the average wages paid in this industry, say for 9 months of 26 days in the year, the earnings would be as follows :

We make the foreman, to be one to each establishment, and the apprentices to be ten per cent. of each class, men and women.

Foremen.....	1,538...234 days, at, say \$5 00 per day..	\$1,799,460 00
Tailors.....	5,864...234 days, at.... 3 50...do.....	4,802,616 00
Tailoresses ...	9,975...234 days, at.... 2 00...do.....	4,668,300 00
Apprentices...	1,759...234 days, at, say 60...do.....	246,963 60
	<u>19,136</u>	<u>11,517,339 60</u>

By looking at the statements in the return entered here, then at the totals of the census return, then at this extraordinary result, the preposterous exaggeration of such statements of wages are unmistakably seen. An analysis of the census return of the three divisions of children's, men's and women's clothing, will develop no reason why they should be classified separately, for it would seem that in children's clothing the earnings to each person are greater than in either of the others; while in women's, there is only about as much deficiency as would naturally result from the difference in the number of men employed as between that and men's clothing. Much of this discrepancy between the wages quoted here, and the census demonstration, might be accounted for if upon any just hypothesis we could assume that the hands who work intermittently, those untold and unknown thousands of overburdened women who toil at the needle in the intervals of household duty to eke out their insufficient incomes, were included in this return; but this assumption would be violent; for the returns indicate only a little over twelve hands to the establishment, and the number of establishments being so small as to demonstrate that only the larger ones have made returns, would be a very sure demonstration of the fact that these are the regular hands who pursue the calling exclusively for maintenance. The excess of earnings at the rates, and for the time here given, is equal to a little more than 56 per cent.; but as nine months is the time mentioned in the return, and that may easily be more than the average time made, we reduce the wages by 50 per cent., and give the result as the nearest approximation in our power to the true condition as to wages and earnings in this industry.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS IN CLOTHING MANUFACTURES.

Rate per day.....	CLASS.	Number	Earnings of each class per day..	Earnings of each class for year..	Actual ave. earnings for year..
\$2 50	Foreman	1,538	\$3,845 00	\$776,392 10	\$504 80
1 75	Tailors	5,864	10,262 00	2,072,119 17	353 36
1 00	Tailoresses	9,975	9,975 00	2,014,172 13	201 92
50	Apprentices and youth.....	1,759	879 50	177,589 60	100 96
Totals of census returns.....		19,136	24,961 50	5,040,272 00	.....

It will be seen that this table indicates an average of a fraction under 202 days worked in the year, or 8 months and 10 days of 24 days each.

SADDLERY AND HARNESS MAKING.

In this industry we have one return, and that from the city of Lancaster ; it is as follows:

Foremen.....	1, at \$3 50 per day.
Saddlemakers.....	1, at 2 00 do.
Harness..do	6, at 2 00 do.
Collar....do.....	1, at 2 50 do.
Jobbers	2, at 1 75 do.
Apprentices.....	3, at 58 do.

The return of the census is as follows:

Number of establishments.....	903
Do....hands employed.....	2,488
Do....males above 16.....	2,431
Do....females above 15.....	26
Do....youth.....	31
Total wages paid.....	\$662,347 00

The census here, it will be seen, gives not quite three hands to each establishment; as shops so small would hardly have a foreman, the proprietor most probably, acting in that capacity, we will estimate the number of foremen at one-fourth the number of establishments, and throw the women and youth among the apprentices, as in other trades where women appear to be exceptionally employed.

At the wages noted in the return, it will be seen that only 133 days' work could have been averaged in these 903 establishments. As this is far below the time that should be made in a trade not influenced by weather or change of season, and, as the return is evidently from a large concern, in which wages above the average are paid, we estimate the average of foremen's wages at \$2 50 and of skilled workmen at \$1 75 per day.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS IN SADDLERY AND HARNESS MAKING.

Rate per day....	CLASS.	Number	Earnings of each class per day...	Earnings of each class for year..	Actual avg. earnings for year..
\$2 50	Foremen.....	225	\$562 50	\$87,920 96	\$390 75
1 75	Skilled workmen.....	2,015	3,526 25	551,168 05	273 53
60	Apprentices.....	248	148 80	23,257 99	93 78
	Totals of census returns	2,488	4,237 55	662,347 00	.....

This table, even at these low wages, only shows an average of a small fraction over 156 days, or six months of 24 days each and 12 days over.

IRON—ROLLED, CAST, FORGED, &c.

In this industry, which the census divides into eleven separate divisions, we have received three returns, one each from Philadelphia, Pottsville and Williamsport. We have notes of the statements received at Allentown, upon personal application. These latter will be put first on the list.

Allentown, per furnace, 2 keepers..... at \$2 58 per day.
 Do.....do..... 6 helpers..... at 2 40 do.
 Do.....do..... 8 fillers..... at 2 40 do.
 Do.....do..... 2 engineers..... at 2 25 do.
 Do.....do..... 2 cindermen..... at 2 00 do.
 Do.....do..... 1 founder..... at 3 00 do.
 Do.....do..... 8 laborers..... at 1 65 do.

This was given by the very courteous manager of the Allentown iron company's works, as the outfit of hands and their pay, of an ordinary furnace, say of 16 feet bosh. Full time can be made by the hands, inasmuch as the furnaces are working day and night, so that the only time not lost voluntarily, is from sickness, loss of employment or dissipation.

Philadelphia 2 draughtsmen..... at \$3 00 per day.
 Do 2 blacksmiths and boiler makers..... at 3 00 do.
 Do 3 pattern makers..... at 2 25 do.
 Do 2 mill-wrights..... at 3 00 do.
 Do 10 machinists..... at 2 66 do.
 Do 4 laborers..... at 1 62 do.
 Do 1 engineer..... at 2 33 do.
 Do 8 apprentices..... at 53 do.

"Our works have the tools and buildings capable of employing one hundred hands. Our business is dull now and has been for four months past."

The time given, as worked in a year in this return, is 300 days.

Williamsport, 1 foreman.....	at \$4 00	per day.
Do..... 3 foremen.....	at 3 50	do.
Do..... 1 draughtsman.....	at 4 00	do.
Do..... 1 engineer	at 2 00	do.
Do..... 1 watchman	at 2 00	do.
Do..... 23 machinists	at 3 00	do.
Do..... 5 pattern makers.....	at 2 75	do.
Do..... 3 blacksmiths.....	at 3 00	do.
Do..... 4 helpers.....	at 2 00	do.
Do..... 7 moulders.....	at 2 75	do.
Do..... 11 laborers.....	at 1 75	do.
Do..... 3 apprentices.....	at 75	do.

Pottsville—furnaces—85 furnace men.....	at \$1 95	per day, (12 hours.)
Do..... 4 carpenters.....	at 2 50	do. (10 hours.)
Do..... 2 blacksmiths.....	at 2 50	do. do.
Do..... 59 laborers	at 1 50	do. do.

Pottsville—passenger rail mills—2 machinists.....	at \$2 12½	per day.
Do.....do..... 2 carpenters.....	at 2 37½	do.
Do.....do..... 2 moulders.....	at 2 29	do.

Pottsville—passenger rail mills—291 laborers, from boys at fifty cents to one dollar per day, to laborers, outside, from \$1 41 to \$1 58 per day, and laborers, inside, from \$1 12 to \$3 75 per day. Puddling furnaces—160 puddlers, at \$6 60 per ton, should make \$4 00 per day. Fifty rail mill men, at from \$2 50 to \$5 00 per day.

MANUFACTURING INDUSTRIES.

The census gives the following figures in the iron manufacturing industries, machinery, in the four census divisions—"not specified, cotton and woolen, railroad repairing, and steam engines and boilers being included:

CENSUS TABLES OF IRON MANUFACTURES.

IRON.	No. of establishments	Total hands employed	Males above 16 years	Females above 15 years	Youth	Total wages paid
Blooms	43	1,473	1,422	2	49	\$707,589 00
Forged and rolled	135	21,865	20,974	20	871	12,243,483 00
Anchors and cable chains	4	48	33		15	18,500 00
Bolts, nuts, rivets, &c	29	1,553	1,230	18	305	895,323 00
Nails and spikes, cut and wrought	31	2,036	1,594	22	420	1,106,214 00
Pipe, wrought	8	1,288	1,195		93	709,710 00
Railing	12	55	54		1	18,176 00
Ship building and engines	1	352	352			210,000 00
Pigs	136	10,861	10,629	10	222	5,014,455 00
Castings, (not specified)	443	7,587	7,259	2	326	3,813,037 00
Stoves, heaters, &c	81	2,052	1,897		155	1,139,751 00
Machinery, four divisions	477	17,690	17,314	54	322	9,944,130 00
Totals	1,400	66,860	63,953	128	2,779	35,730,368 00

Two of the preceding returns include book-keepers and clerks which we have left out because they were not intended to be included in the census return. (as we are informed by Mr. Walker, the superintendent of the census;) only one of them includes foremen or overseers, which all large establishments have and must have, and, as usual, the return of youth cannot include apprentices, and we know nothing of the place the females have in this industry, we therefore divide the whole by the percentages indicated by an average of the returns, allowing 4 per cent. to be foremen and 10 per cent. apprentices, as is estimated generally to be the average.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS IN IRON MANUFACTURES.

Rate per day	CLASS.	Number	Earnings of each class per day	Earnings of each class for year	Actual avg. earnings for year
\$3 50	Foremen	2,005	\$7,017 80	\$1,841,007 24	\$918 20
3 00	Skilled workmen	20,728	62,184 00	16,313,931 30	787 04
1 80	Labor, first class	19,389	34,900 00	9,155,992 65	472 22
1 50	Labor, second class	18,052	27,078 00	7,103,896 58	393 52
75	Apprentices	6,686	5,014 50	1,315,540 23	193 75
	Totals of census tables	66,860	136,194 00	35,730,368 00	

It will be seen that we have rated foremen's wages less than in the return, while the other classes are put within a few cents of the exact average wages reported. The time worked at these rates to earn the amount paid as per census return is 10 months of 26 days and two days over.

LUMBER.

In lumber we have received one return from Williamsport, which is as follows:

Foremen.....	4, at \$3 00 per day for the year.
Engineer..	1, at 1,200 per year.
Filers.....	3, at 4 00 per day, employed 8 months.
Sawyers, &c.....	63, at 2 15...do.....do.....
Wages of men.....	from 2 25 to \$2 75 per day.
Wages of boys.....	from 1 25 to 2 00 per day.

In this return it will be seen that we are left entirely to surmise as to the proportion of boys to the whole number, and as to their average wages. We must, therefore, estimate in both these particulars. In the matter of planed lumber and staves and shooks the conditions are so near the same that we include them in one table. The figures from the census are as follows:

Number of establishments for planed lumber.....	183
Number of hands employed.....	1,859
Number of males above 16.....	1,813
Number of females above 15.....	2
Number of youth.....	44
Total amount wages paid.....	\$958,817 00
Number of establishments for staves, shooks, &c.....	1
Number of hands employed, men.....	3
Total amount wages paid	1,500 00
Total amount paid in both divisions.....	960,317 00

MANUFACTURING INDUSTRIES.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS IN LUMBER.

Rate per day....	CLASS.	Number.....	Earnings of each class per day....	Earnings of each class for year..	Actual avg. earn- ings for year....
2 50	Foremen.....	186	\$465 00	\$123,253 37	\$662 59
2 25	Skilled workmen.....	920	2,070 00	548,677 49	596 38
1 50	Laborers.....	710	1,065 00	282,291 14	397 59
50	Youth, &c.....	46	23 00	6,095 00	132 50
Totals of census returns		1,862	3,623 00	960,317 00	.....

This table shows an average of 265 days worked in the year. As we have no information as to the employment of apprentices here, we assume the youth to be errand boys and the like.

The census return in the matter of sawed lumber, which is the subject of the return from Williamsport, gives the following figures:

Number of establishments	3,738
Do....hands employed.....	17,424
Do....males above 16.....	17,275
Do....females above 15.....	15
Do....youth.....	134
Total wages paid.....	\$5,260,076 00

A test of the wages as given in the Williamsport return as an average for the State, would show that only four months' work was done in the census year; this is just half the time named in the return, and proves that the wages paid over the State will average at least 40 per cent. less than is here given as prevailing at Williamsport. The table below shows 171 days and a fraction over, as the average time worked at these wages in the year.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS FOR CENSUS YEAR.

Rate per day....	CLASS.	Number	Earnings of each class per day....	Earnings of each class for year..	Actual avg. earn- ings for year....
2 50	Foremen.....	1,742	\$4,355 00	747,852 22	\$429 25
2 00	Skilled workmen.....	7,861	15,728 00	2,700,878 33	343 44
1 50	Laborers.....	6,250	9,375 00	1,609,913 13	257 58
75	Boys, &c.....	1,568	1,176 00	201,432 32	128 46
Totals of the census returns.....		17,424	30,634 00	5,260,076 00	.....

It will be seen that in this classification we have entirely disregarded the statements of the return received, as to the foremen and engineers being employed the whole year. It may be proper to explain, that this is not because we discredit the statements contained therein, for the character of the gentlemen making them, as well as corroborative information, indicate the facts as there stated to be true of Williamsport. But as the operations in this industry are found every where throughout the State, and as, where the operations are not so concentrated and extensive, the wages are not so high, we are compelled to modify the rates according to the census returns, and the probabilities as to time worked, in order to carry out the plan we have adopted to present an approximation to the actual average earnings of each class of wage-workers within its borders.

LIQUORS.

In the manufacture of liquors the only return we have is from one of the principal breweries in Philadelphia. It is as follows :

Superintendent.....	1, at \$8 00 per day.
Clerks	3, at 4 00 do.
Coopers	6, at 2 50 do.
Engineers	2, at 2 50 do.
Draymen.....	12, at 2 00 do.
Cellarmen.....	12, at 2 00 do.
Brewerymen	8, at 2 00 do.
Maltsters	10, at 2 00 do.
Watchmen	2, at 2 00 do.
Wash-housemen	4, at 2 00 do.

The census gives the figures in this industry as follows :

Number of establishments.....	246
Do. . .hands employed.....	1,583
Do....males above 16.....	1,569
Do....females above 15.....	2
Do....youth	12
Total wages paid.....	\$773,267 00

We rate in the following table the superintendent and clerks under our general head of foremen, as they evidently sustain that position in this brewery. The coopers and engineers are the skilled workmen, and of the remainder for the purposes we have in hand we make first and second class laborers and boys, including the women among the latter, for the reasons already given in other trades. We divide them as 7 per cent. foremen, 13 per cent. skilled workmen, 50 per cent. laborers, first class, 25 per cent. laborers, second class, and 5 per cent. boys. We have somewhat reduced the aver-

MANUFACTURING INDUSTRIES.

age of foremen's wages, and introduced the second class labor, because we have knowledge of its being a closer approximation to the general average.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS FOR CENSUS YEAR.

Rate per day.....	CLASS.	Number.....	Earnings of each class per day...	Earnings of each class for year..	Actual avg. earnings for year...
\$3 50	Foremen.....	110	\$385 00	\$94,894 80	\$862 68
2 50	Skilled workmen.....	206	515 00	126,936 20	616 19
2 00	Laborers, first class.....	792	1,584 00	390,422 94	492 95
1 50	Laborers, second class.....	396	594 00	146,409 12	369 72
75	Youth, &c.....	79	59 25	14,603 94	184 86
Totals of census tables.....		1,583	3,137 25	773,267 00	.....

The table shows a little over 246 days, as the average time worked in the year.

SUGAR REFINED.

We have one return from this industry from Philadelphia, which is as follows:

Clerks.....	2 at \$3 00 per day, 52 weeks
Sugar boilers.....	2 at 5 00 " 52 "
Engineers.....	4 at 3 00 " 52 "
Coopers.....	12 at 3 00 " 30 "
Bosses of gangs.....	2 at 2 50 " 41 "
Teamsters.....	5 at 2 00 " 30 "
Watchmen.....	2 at 2 00 " 52 "
Laborers.....	30 at 2 00 " 30 "

The census gives figures in this industry as follows:

Number of establishments.....	15
Do... hands employed.....	1,241
Do... males above 16.....	1,240
Do... youth.....	1
Total wages paid.....	\$663,408 00

Upon these data we make the following exhibit, guided by the same general considerations as have controlled our estimates in other industries :

CLASSIFICATION, WAGES AND AVERAGE EARNINGS FOR CENSUS YEAR.

Rate per day.....	CLASS.	Number.....	Earnings of each class per day...	Earnings of each class for year...	Actual avg. earnings for year.....
\$3 00	Foremen or clerks.....	37	\$111 00	\$29,115 71	\$786 91
3 15	Skilled workmen.....	211	664 65	174,340 91	826 26
2 00	Laborers, first class.....	621	1,242 00	325,782 53	524 60
1 50	Laborers, second class.....	310	465 00	121,971 70	393 45
75	Youth, &c.....	62	46 50	12,197 15	196 40
Totals of census returns.....		1,241	2,529 15	663,408 00	.....

PRINTING AND PUBLISHING.

We have received three returns in this industry—one from Philadelphia, one from Wilkesbarre and one from Lancaster :

PHILADELPHIA.

Foremen.....	5, at \$4 50 per day.
Pressmen.....	3, at 3 17 do.
Compositors.....	14, at 2 60 do.
Engineer.....	1, at 2 67 do.
Ware-room men.....	2, at 2 00 do.
Press-feeders, boys.....	11, at 1 00 do.
Apprentices.....	14, at 75 do.

WILKESBARRE.

Clerks.....	1, at \$3 00 per day.
Foreman.....	1, at 2 50 do.
Apprentices.....	2, at 87 do.

LANCASTER.

Foremen.....	7, at \$3 00 per day.
Compositors, men.....	35, at 2 00 do.
Do..... women.....	5, at 1 00 do.
Do..... apprentices.....	41, at 42 do.
Folders, women.....	30, at 38 do.
Bookbinders, men.....	2, at 2 00 do.
Do..... apprentices.....	5, at 33 do.
Pressmen.....	2, at 3 00 do.
Do..... women.....	3, at 38 do.
Do..... apprentices.....	6, at 60 do.

The first of these returns is of a book and job printer; the second, a newspaper publisher, printer, bookbinder and stationer; the third, a print-

ing and publishing company. As these include all the divisions given in the census, we consider them altogether. The following are the census figures:

Printing and publishing (not specified) establishments....	77
Do....Hands employed.....	3,117
Do....Males above 16.....	2,664
Do....Females above 15.....	307
Do....Youth.....	146
Do....Total wages paid.....	<u>\$2,054,975 00</u>
Printing and publishing book establishments.....	2
Do....Hands employed.....	16
Do....Males above 16.....	14
Do....Females above 15.....	2
Do....Total wages paid.....	<u>\$6,625 00</u>
Printing and publishing newspaper establishments.....	124
Do....Hands employed.....	1,199
Do....Males above 16.....	1,018
Do....Females above 15.....	66
Do....Youth.....	115
Do....Total wages paid.....	<u>\$673,084 00</u>
Printing and job establishments.....	104
Do....Hands employed.....	1,032
Do....Males above 16.....	786
Do....Females above 15.....	116
Do....Youth.....	130
Do....Total wages paid.....	<u>\$460,965 00</u>

As these several divisions are so intimately connected with each other, the difference between them (with the exception of the book business) so trifling, and in that, the amount so small as not to affect the whole average appreciably, we consolidate them and present them as one.

The total number of establishments are.....	307
Do.....do.....hands.....	5,364
Do.....do.....males above 16.....	4,482
Do.....do.....females above 15.....	491
Do.....do.....youth.....	391
Total wages paid in all.....	<u>\$3,195,649 00</u>

An examination of the returns given above, will show that out of 187 employees, there are of the whole 7 per cent. foremen at \$3 50 per day, 31 per cent. skilled workmen at \$2 25 per day, 42 per cent. apprentices at 60 cents per day, and 20 per cent. females at 47 cents per day.

We believe this proportion of apprentices to be too large, and the compensation of the females to be too small. In making our table, we reduce the percentage of apprentices to 20, and put that of women to 10 per cent., while we estimate their average pay at \$1 00 per day. We also increase the rate of skilled workmen's pay to \$2 50 day, as a nearer average.

CLASSIFICATION, WAGES AND AVERAGE EARNINGS FOR YEAR.

Rate per day....	CLASS.	Number	Earnings of each class per day..	Earnings of each class for year..	Actual avg. earnings for year..
\$3 50	Foremen.....	322	\$1,127 00	\$302,434 62	\$939 25
2 75	Skilled workmen.....	3,433	9,440 75	2,533,459 96	737 97
1 00	Females above 15.....	536	536 00	143,776 98	268 24
75	Apprentices and youth.....	1,073	804 75	215,977 44	201 29
	Totals of census returns.....	5,364	11,908 50	3,195,649 00	

At the rates and classifications here exhibited the average time worked was a small fraction over 268 days.

Below we give a recapitulation table of all the manufacturing industries of which we have received returns, as shown in the preceding pages.

CLASSIFICATION, WAGES AND EARNINGS IN MANUFACTURING INDUSTRIES FOR WHICH RETURNS HAVE BEEN RECEIVED.

CLASS.	Percent'ges of the whole number,	Number	Avg. daily wages	Earnings of each class per day..	Earnings of each class for year..	Actual avg. earnings for year..
Foremen.....	5	7,833	\$2 88.4	\$22,602 93	\$5,137,451 58	\$655 62
Skilled workmen.....	37	57,125	2 42.5	138,452 58	33,262,621 54	682 27
Laborers, first class.....	15	22,601	1 82	41,187 11	10,684,108 87	472 72
Laborers, second class....	20	29,595	1 50	44,496 90	10,833,052 75	366 04
Females above 15.....	11	16,476	1.03	17,012 85	3,639,174 92	220 87
Youth, apprentices, &c....	12	17,758	68	12,140 20	2,899,639 34	163 28
		151,391		275,892 57	66,456,049 00	

This shows the results reached upon the basis we have adopted, (and which is explained by the tables presented in the preceding pages) for all the manufacturing industries of which we have received any returns.

An examination of the census return will show, that the percentage of females, of the total hands employed in such industries in the State is 13 per cent., while in those included in our returns they are only 11 per cent. We do not, however, regard this difference as of sufficient importance to affect our approximation materially, and therefore in the following table of

DOMESTIC SERVANTS.

approximate totals, we preserve the proportions indicated in the last table. The grand totals of the census in manufacturing industries are as follows :

Total number of establishments.....	37,200
Total number of hands employed.....	319,487
Total number of males above 16.....	256,543
Total number of females above 15.....	43,712
Total number of youth.....	19,232
Total wages paid.....	\$127,976,594 00

These classified and rated as per the last table and explanations will show the approximate result for the State.

CLASSIFICATION, WAGES AND EARNINGS IN MANUFACTURES FOR THE STATE.

CLASS.	Percent- gs of the whole number,	Total hands em- ployed	Avg. daily wages	Earnings of each class per day..	Earnings of each class for year.	Actual avg. earn- ings for year.
Foremen, &c.....	5	15,974	\$2 88.4	\$46,069 01	\$10,199,145 15	\$638 48
Skilled workmen.....	37	118,210	12 42.5	186,679 25	63,463,638 27	536 87
Laborers, first class.....	15	47,924	1 82	87,221 68	19,369,871 05	402 92
Laborers, second class...	20	63,897	1 50	95,835 50	21,219,684 18	332 08
Females above 15.....	11	35,144	1 03	36,198 32	8,613,888 48	228 03
Youth, apprentices, &c..	12	38,338	08	26,069 84	5,771,506 87	150 54
Totals of census tables		319,487		578,043 60	127,976,594 00	

General average daily wages, \$1 80; general average time worked, 221 days.

DOMESTIC SERVANTS.

The census gives for Pennsylvania, under the head of domestic servants, 84,343. These we assume to be mainly, if not entirely, females. Very few men are employed in our State in capacities that would lead to their being returned in the census blanks as domestic servants, inasmuch as those who would otherwise be so reported are given as agricultural laborers, hostlers, &c. As to the rates of compensation received by domestic servants—this is more difficult to determine. In the large cities, competent and well conducted servants frequently are paid as much as \$4 00 per week, in addition, of course, to their board, while it is probably very near the mark to say \$2 00 per week would be the average for adults. This estimate would, nevertheless, be too high to apply to the whole, inasmuch as a very considerable proportion of them are young girls, who may be regarded as learners, and child nurses, whose compensation is from 50 cents to \$1 00 per week. The compensation of servants depends also very largely upon

the circumstances of the employers, their ability to pay and fastidiousness as to the quality of the service required. Nor is it of very great importance, in the inquiry we are making, whether our estimate is too high or too low, because the condition of servant, as it is understood in this State, is not to be regarded in any general sense as a permanent one ; being assumed almost invariable as a temporary expedient, a means of bridging over an exceptional pecuniary difficulty, and sometimes, though not nearly so often as it should be, as the means of acquiring a knowledge of practical house-keeping, that will fit the person so learning to fill with credit to herself and blessing to her family her future relation of wife and mother. Throughout the country districts the wages of domestic servants, under the same general conditions, may be put at \$1 00 per week, with board. We believe from our observation and information derived from inquiry, that an estimate of \$1 25 per week for the whole State will not be far from the truth. For the reasons given here we do not include this class in our recapitulations.

AGRICULTURAL LABORERS.

The number of agricultural laborers is put by the census at 68,897. To a considerable extent the remarks applied to the subject of domestic servants will also apply to these. The occupation of farm laborers is not to an appreciable degree adopted as a profession or life's pursuit in this State, but only as a preparation or intermediary stage to the business of farming or some other gainful pursuit. The wages of adult farm laborers vary from \$12 00 to \$20 00 per month and found, as it is called ; in other words, with board ; and of youth, from \$3 00 to \$8 00 per month, with board likewise. In the busy seasons, as harvest time, &c., the daily wages of extra hands will often reach as much as is paid to ordinary skilled workmen ; but as this is only for a short time, and regular hands of the farm are usually engaged by the month and sometimes by the year, and as these temporarily employed hands are also transitory residents, and often the skilled workmen, mechanics, &c., of the neighborhood, they will hardly have been reckoned in the enumeration of this class of workmen in the census return. We, therefore, estimate the average daily earnings of this class of workmen upon the basis for the whole State of, say \$16 00 per month and found. In order to determine somewhat nearly the proportion their earnings bear to those of other laborers, we must add to the monthly wages the value of the additional compensation they receive in the way of board and lodging, and even generally, if not always, washing.

This, again, cannot be predicated upon the cost of the accommodation to the employer, but upon the charges usually made by those who furnish such accommodations by keeping boarding houses, either exclusively, or as

incidental to their other pursuits. In the cities, and large industrial districts, such as the mining regions, &c., the usual charge in workmen's boarding houses may be put at \$5 00 per week in the census year; it is somewhat less now, probably about an average of \$4 50. Away from these more crowded and busy quarters the charges would be lower. We are inclined to put the average over the State at, say, \$3 00 per week. This would bring the annual compensation of this class of laborers, supposing full time to be made up to \$348 00 per year. But making deduction for the usual deficiency of time made, we may set them down at \$300 00 per year, and class them among second class laborers.

BOOK-KEEPERS, ACCOUNTANTS AND CLERKS IN STORES, &c.

The census tables of occupations give the following figures :

Book-keepers and accountants in stores.....	2,240
Clerks in stores.....	20,467
Salesmen and saleswomen.....	5,772
	<hr/>
	28,479
	<hr/>

In these occupations, we have no data to go upon except common report. We received one return from Philadelphia, but it is very incomplete, simply saying they are not manufacturers, but jobbers in straw and millinery goods. Their salesmen, of whom they employ 5, they pay according to what they sell. Their saleswomen, of whom they employ 9, from learners to experienced hands, earn from \$2 to \$8 per week, while they employ from 4 to 8 milliners in seasons of from 6 to 9 months in the year, who earn from \$4 25 to \$12 per week.

Mr. Blodgett, in his essay before alluded to, puts the pay of accountants in the city of Philadelphia, at from \$2 to \$3 50 per day.

There can be no doubt, but that the skilled workmen in mechanical and manufacturing occupations, are better paid than the masses of those who are called clerks in stores. The fancied greater ease and gentility of the life of the merchant over that of the mechanic, is probably the principal cause of a competition for such employment, that effectually closes the door to adequate compensation, while a small proportion of the whole who, through their superior ability and aptness, are valuable employees, receive full and sufficient compensation; common report and representation are very wide of the mark if the great majority are not very poorly paid. In our estimate, we put the wages as near the truth as we have the means of approximating it.

We estimate one-third of the book-keepers to be first-class, say at an average of \$4 00 per day, or \$1,200 per year; two-thirds at \$2 50 per day, or \$750 per year.

Of clerks in stores we will call 33 per cent. first-class, at an average of \$2 00 per day ; 50 per cent. second-class, at \$1 25 per day, and 17 per cent. youth, at, say, 50 cents per day.

Of salesmen and saleswomen we make the proportions of male and female the same as in the Philadelphia return, viz : 35.7 per cent., males, at \$1 50 per day ; 64.3 per cent., females, at 86 cents per day. This, of course, is liable to the charge of being mere speculation, and yet we have strong conviction that thorough and authoritative inquiry would demonstrate that it is rather above than below the average.

Our exhibit then would be as follows :

Book-keepers, &c. 1st class....	747....at per year....	\$1,200 00
Do.....2d class.....	1,493.....do.....	750 00
Clerks.....1st class....	6,754.....do.....	600 00
Do.....2d class.....	10,234.....do.....	375 00
Do.....Youth.....	3,479.....do.....	150 00
Salesmen	2,060.....do.....	450 00
Saleswomen.	3,712.....do.....	258 00
		<u>11,249 00</u>

EMPLOYEES OF RAILROAD COMPANIES, &c., (NOT CLERKS.)

The census gives the following figures under the above heading :

Employees of railroad companies, (not clerks,)	18,081
Do.....street railroad companies, (not clerks,)	1,348
Do.....telegraph companies, (not clerks,)	1,210
Total number of employees	<u>20,639</u>

Of the employees of railroad companies, we assume that there are included engineers, firemen, conductors, brakemen and baggage masters, and laborers on repairs. In the absence of any information on the subject, other than is derived from general observation, we divide these between the five classes, as 15 per cent. each, of the three first, 35 per cent. of the fourth and 20 per cent. of the fifth.

Of employees of street railway companies, it is to be assumed that they represent the conductors, drivers, stablemen and laborers on road repairs. These we divide equally between the three classes.

Of the telegraph companies' employees, we assume are included those having charge of repairs, their laborers and messengers, who are youth. These we divide as 20 per cent. foremen, or supervisors of divisions ; 50 per cent. laborers, and 30 per cent. messengers, who are mainly youth.

In the matter of wages, we have only common report to guide us. How near, alike in classification and wages we have been able to come to the truth, we must leave to those who are better informed to determine.

RAILROAD EMPLOYEES.

RAILROAD EMPLOYEES.

Upon the plan we have proposed, the following will be the exhibit in these employments, on an estimate of 275 days average time worked in year:

Engineers.....	2,712, at \$3 00 per day average,	\$825 00
Firemen	2,712, at 2 00 do.....	550 00
Conductors	2,712, at 2 75 do.....	765 25
Brakemen and baggage masters..	6,328, at 1 75 do.....	481 25
Laborers.....	3,617, at 1 50 do.....	412 50

STREET RAILWAYS.

Conductors.....	449, at \$2 25 per day average,	\$618 75
Drivers	449, at 2 00 do.....	550 00
Laborers.....	450, at 1 50 do.....	412 50

TELEGRAPH COMPANIES' EMPLOYEES.

Foremen	242, at \$2 50 per day average,	\$687 50
Laborers	605, at 1 50 do.....	412 50
Youth	363, at 75 do.....	206 25

These will end our extracts from the census tables of occupations, not because they present even an approach to the total wage-working population of the State in numbers, but because they are all the classes that are sufficiently defined as to their character to enable us to use them in illustration of the exhibit we desire to make. Of the remainder, the return is made in such manner that, with the means at our disposal, we cannot find the data upon which to base a division of the wage-workers from the whole number. There are given as being engaged in all occupations in the State 1,020,544 persons over ten years of age. When it is remembered that there are included in this number all the proprietors of every kind of business, and all persons engaged in the professions, it will be conceded that the number we present is a very fair representation of the vast army of workers, whose sturdy efforts, persistently applied, are rapidly pushing forward the position of the Commonwealth to the first place, as to wealth and population; and may we not reasonably hope, under the influence of growing intelligence, in virtue and wisdom, in the galaxy of States. We now present a recapitulation of the whole of our inquiries, giving columns of classes, numbers, daily wages, estimated days worked, daily earnings of each class in each trade; annual earnings of the same, and actual annual average earnings of each individual of each class. We give all the figures, that those interested may see the method by which we reach our conclusions

GENERAL RECAPITULATION.

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RECAPITULATION OF CLASSIFICATION, WAGES AND EARNINGS FOR THE STATE.

FOREMEN, FULL TIME HANDS, &C.

CLASS.	Number.....	Daily wages.....	Days worked.....	Daily earnings of each class.....	Annual earnings of each class.....	Actual average annual earnings..
Mining	6,210	\$3 08	289.3	\$19,126 80	\$5,533,383 24	\$891 20
Manufacturing	15,974	2 88.4	221	46,069 01	10,181,251 21	637 36
Book-keepers, &c., 1st class	2,240	3 00	300	6,720 00	2,016,000 00	900 00
Engineers, railroad.....	2,712	3 00	275	8,136 00	2,237,400 00	825 00
Conductors	2,712	2 75	275	7,458 00	2,050,950 00	756 25
Totals and general avgs.	29,848	2 93	251.6	87,509 81	22,018,984 45	737 70

SKILLED WORKMEN.

Mining.....	36,368	\$3 00	192.5	\$109,104 00	\$21,002,520 00	\$577 50
Manufacturing.....	118,210	2 42.5	221	286,659 25	63,351,694 25	535 92
Book-keepers, &c., 2d class	6,754	2 00	300	13,508 00	4,052,400 00	600 00
Firemen, railroad.....	2,712	2 00	275	5,424 00	1,491,600 00	550 00
Brakemen, &c.....	6,328	1 75	275	11,074 00	3,045,350 00	481 25
Conductors, 2d class.....	449	2 25	275	1,010 25	277,818 75	618 75
Drivers of cars.....	449	2 00	275	898 00	191,950 00	427 50
Foremen telegraphs.....	242	2 50	275	605 00	166,375 00	687 50
Totals and general avgs.	171,512	2 49.7	218.5	428,282 50	93,579,708 00	545 61

LABORERS—FIRST CLASS.

Mining.....	16,140	\$2 14	194.1	\$34,539 60	\$6,704,136 26	\$415 37
Manufacturing.....	47,924	1 82	221	87,221 68	19,275,991 28	492 22
Railroad laborers.....	3,617	1 50	275	5,425 50	1,492,012 50	412 50
Street railroad laborers...	450	1 50	275	675 00	185,625 00	412 50
Telegraph laborers	605	1 50	275	907 50	249,562 50	412 50
Salesmen in stores.....	2,060	1 50	300	3,090 00	927,000 00	450 00
Totals and general avgs.	70,796	1 86.2	218.7	131,859 28	28,834,327 64	407 42

LABORERS—SECOND CLASS.

Mining.....	12,396	\$1 77	180.7	\$21,940 92	\$3,964,724 24	\$319 84
Agricultural laborers.....	68,897	1 50	200	193,345 50	20,669,100 00	300 00
Manufacturing.. ..	63,897	1 50	221	95,845 50	21,181,855 50	331 50
Clerks, second class	10,234	1 25	300	12,792 50	3,837,750 00	375 00
Totals and general avgs.	155,424	1 50.5	212.2	233,924 42	49,633,429 74	319 47

FEMALES.

Manufacturing	35,144	\$1 03	221	\$35,198 32	\$7,999,828 72	\$227 63
Saleswomen	3,712	86	300	3,192 32	957,696 00	258 00
Totals and general avgs.	38,856	1 01.3	277.4	39,390 64	8,957,524 70	230 53

APPRENTICES AND OTHER YOUTH.

Mining.....	9,646	\$ 90.4	173	\$8,719 98	\$1,508,553 54	\$156 39
Manufacturing.....	38,338	68	221	26,069 84	5,761,434 64	150 28
Clerks	3,479	50	300	1,739 50	521,850 00	150 00
Telegraph messengers, &c.	363	75	275	272 25	74,868 75	206 25
Totals and general avgs	51,826	71	213.7	36,801 57	7,866,709 93	151 79
Grand totals.....	518,262				210,910,684 46	

It is seen by the foregoing table, that, according to our approximation, there are

29,848 males whose average earnings per year are.....	\$737 70
171,512 .....do.....do.....do	545 61
226,220 .....do.....do.....do	346 95
38,856 females..do.....do.....do	230 53
51,826 youth...do.....do.....do	151 79

We now estimate that, say 30 per cent., of the females are working for their own individual support, as distinct from those whose labor goes to aid in the support of families; while, we will say 20 per cent. of youth may be put in the same category. After these are deducted, the earnings of the remainder go to swell the earnings of the heads of families among the several classes of male workmen. Of these, we put none to the credit of full time hands, &c., because, from the fact that they are better paid, the necessity does not exist for aid from such sources. We must also make an allowance for the proportion of male workmen who have families, to those who are single and work for themselves alone. We assume the latter to be of skilled workmen 15 per cent., and of laborers 25 per cent. This estimate will give heads of families among skilled workmen, 145,786, and 25,726 single men; among laborers it will give as heads of families, 169,665, and 56,555 single men. This shows an excess of laborers' families over the families of skilled workmen, of 23,879, or about 14 per cent.; but, as from the more liberal incomes of skilled workmen, the necessities are not so great, we estimate that a much smaller number resort to the earnings of wives and children to add to the means of family support, and we therefore increase this difference by 16 per cent., giving to laborers' families 70 per cent. of the earnings of females and youth, (reduced as before mentioned,) and 30 per cent. to skilled workmen. Our conclusions will thus make the following exhibit:

Foremen and full time hands.....	29,848.....	yearly earnings, \$737 70
Skilled workmen with families.....	145,786.....	do..... 571 47
Do..... single.....	25,726.....	do..... 545 61
Laborers with families.....	169,665.....	do..... 398 78
Do.. single.....	56,555.....	do..... 346 95
Females, single	11,656.....	do..... 230 53
Youth, self-supporting	10,365.....	do..... 151 79

In adopting the plan here presented of approximating the actual average annual earnings of the different classes of wage-workers, we have been governed by the consideration, that the importance of determining, as nearly as possible, the earnings of the people is greater than a comparison of quoted

wages. In the Massachusetts report their statements are generally based upon the latter. But the practicability of reaching reliable conclusions, through means of the five thousand dollars they had to expend in payment for *bona fide* returns and inquiries, gave them a very great advantage over this Bureau with its very small appropriation for such purposes.

We know that the results reached are peculiarly open to criticism at the hands of those who do not understand the subject, or who would prefer that the question should not be raised at all; but we feel equally sure that to the thoughtful student of *politico-social* economy, who is well enough informed to realize the gravity of the situation, and brave and humanitarian enough to wish for and seek a remedy, they will be suggestive and helpful. The only suggestion we wish to add is, that if it is conceded that they are too speculative, that the classification of the workmen is erroneous, and presents too large a proportion of underpaid workmen, still, any alteration that can be made within reason or probability, will not increase the general average earnings more than forty or fifty dollars per year.

Now, a few extracts from the Massachusetts Labor Report will serve as criterion by which to test the general correctness of the conclusions we have reached. It will be noted that the tables we extract are made up from returns actually received from employers, and give their showing of the matters contained in them. They are taken from the volume for 1871, because that comes nearest to the time for which our approximation is made.

MECHANICAL TABLE No. III.—WAGES, ETC.

BUSINESS.	Number of employees,	Native	Foreign	Men.....	Young persons.....	AVERAGE DAY WAGES.								Total amount paid from January 1, to July 1, 1870	
						Foreman	Engineer.....	Laborer	Moulder.....	Apprentice.....	Foundry men..	Pattern maker..	Machinist.....		Blacksmith
1. Agricultural tools.....	45	18	27			\$1 50	\$2 50	\$1 75			\$1 80		00	\$2 11	\$13,018 00
2. Anchors	50	36	14					1 50		\$1 12			08	3 00	19,002 00
3. Boiler makers.....	157					3 75				1 25			25	2 50	
4. {	288					3 00							18		
5. {	75												40	2 50	33,920 74
6. {	52	22	27										70		37,557 30
7. {	107	40	67	93	14					1 05			31	3 25	3,547 15
8. {	11	4	7					1 75					00		1,504 67
9. {	15	3	12					1 66					50		8,472 46
10. {	37	15	22										37		8,552 66
11. {	20	7	13										189		15,593 31
12. {	68	38	30					1 55	1 62		1 75		35		18,350 00
13. {	65	10	56			4 00				1 00	2 50				72,000 00
14. {	275	183	92							1 00	3 00		42		3,432 00
15. {	10	7	3	6	4					1 25			05		2,765 97
16. {	11	10	1	9	2						2 25		25		5,923 16
17. {	24	5	19										17		7,798 21
18. {	27	10	17	18	8										540,000 00
19. {	843	115	718	718	66			1 50	2 50	1 00		3 00	2 91	2 00	2,910 78
20. {	15			12	3		2 75	1 08	2 83	1 00			83		9,488 27
21. {	76			68	8								1		1,592 66
22. {	65	25	40					1 60	2 75	1 00			50		7,200 00
23. {	20	13	2									2 75	2 00		21,550 00
24. {	27	13	9			3 50			2 75				00		20,301 08
25. {	14	12	2							1 00			2 00		3,000 00
26. {	82	37	45	75	7			1 75	3 50			2 75	2 81	2 00	
27. {	14	11	3			4 50	2 00	1 75	3 90	1 50					
28. {	50	39	29	46	4			1 75							

29..	80	20	60	2 00	2 75	1 62	2 75	1 70	2 45	20,821 26
30..	34	10	24	2	2 25	1 70	2 48	2 48	2 48	11,232 00
31..	32	13	11	22	2 25	1 50	3 00	3 00	3 00	11,885 31
32..	32	12	20	4	2 50	1 66	2 08	2 08	2 08	30,000 00
33..	69	19	50	77	2 50	2 75	2 75	2 75	2 75	20,937 57
34..	100	12	18	23	2 50	2 75	2 75	2 75	2 75	20,598 00
35..	50	35	15	15	2 50	2 75	2 75	2 75	2 75	8,000 00
36..	121	62	121	4 80	2 75	2 00	2 68	2 68	2 68	6,000 00
37..	20	25	4	3 53	2 88	1 45	2 75	2 75	2 75	14,500 00
38..	27	25	2	3 09	2 00	1 50	2 12	2 12	2 12	3,557 84
39..	148	8	140	3 00	2 00	1 50	2 34	2 34	2 34	6,581 89
40..	30	15	15	3 00	2 00	1 50	2 34	2 34	2 34	1,586 00
41..	80	25	55	3 00	2 00	1 50	2 34	2 34	2 34	9,800 00
42..	14	13	1	3 00	2 00	1 50	2 34	2 34	2 34	13,686 00
43..	26	6	20	3 00	2 00	1 50	2 34	2 34	2 34	6,468 93
44..	12	10	2	3 00	2 00	1 50	2 34	2 34	2 34	44,881 00
45..	31	47	8	3 08	2 25	1 68	2 64	2 64	2 64	57,276 00
46..	55	5	6	3 08	2 25	1 68	2 64	2 64	2 64	8,670 90
47..	15	9	23	3 08	2 25	1 68	2 64	2 64	2 64	10,000 00
48..	106	83	23	3 08	2 25	1 68	2 64	2 64	2 64	46,700 37
49..	187	91	96	3 08	2 25	1 68	2 64	2 64	2 64	24,800 00
50..	19	16	3	3 08	2 25	1 68	2 64	2 64	2 64	28,800 00
51..	20	13	7	3 08	2 25	1 68	2 64	2 64	2 64	189,369 36
52..	161	11	10	3 08	2 25	1 68	2 64	2 64	2 64	7,509 00
53..	21	163	212	3 08	2 25	1 68	2 64	2 64	2 64	11,160 00
54..	375	80	20	3 08	2 25	1 68	2 64	2 64	2 64	120,000 00
55..	109	50	25	3 50	2 25	1 54	2 64	2 64	2 64	24,000 00
56..	75	50	25	4 00	2 25	1 54	2 64	2 64	2 64	24,000 00
57..	548	290	258	4 00	2 25	1 54	2 64	2 64	2 64	17,031 73
58..	25	23	2	4 00	2 25	1 54	2 64	2 64	2 64	3,457 50
59..	18	6	12	4 00	2 25	1 54	2 64	2 64	2 64	11,195 00
60..	275	200	25	4 00	2 25	1 54	2 64	2 64	2 64	818 82
61..	84	44	40	4 00	2 25	1 54	2 64	2 64	2 64	21,044 95
62..	632	421	211	4 00	2 25	1 54	2 64	2 64	2 64	15,342 00
63..	110	100	25	4 00	2 25	1 54	2 64	2 64	2 64	225,635 00
64..	125	60	55	4 00	2 25	1 54	2 64	2 64	2 64	6,693 00
65..	60	55	5	4 00	2 25	1 54	2 64	2 64	2 64	7,671 50
66..	34	26	8	4 00	2 25	1 54	2 64	2 64	2 64	
67..	74	26	48	4 00	2 25	1 54	2 64	2 64	2 64	
68..	41	33	8	4 00	2 25	1 54	2 64	2 64	2 64	
69..	750	358	6	4 00	2 25	1 54	2 64	2 64	2 64	
70..	15	9	6	4 00	2 25	1 54	2 64	2 64	2 64	
71..	33	12	21	4 00	2 25	1 54	2 64	2 64	2 64	

MECHANICAL TABLE No. III.—WAGES, ETC.—Continued.

Number of blank...	BUSINESS.	Number of employes	Native.....	Foreign.....	Men.....	Young persons.....	AVERAGE DAY WAGES.								Total amount paid from January 1 to July 1, 1870.....	
							Foreman.....	Engineer.....	Laborer.....	Moulder.....	Apprentice....	Foundry men,	Pattern maker	Machinist.....		Blacksmith...
72..	Machinery—Continued.....	96	20	76			\$4 89	\$1 65	\$2 25	\$1 00	\$2 75	\$3 50	\$2 75	\$2 50	\$17,796 53	
73..		60	48	12				1 75	2 50	2 50	1 86		2 75		8,000 00	
74..		272	136	136					1 97				2 75	1 86	74,343 04	
75..		28	20	8					1 50	2 50	1 00	1 89	2 90	2 50	2 50	
76..		97		50				4 60	1 23					1 24	2 37	20,423 00
77..		20	19	1						1 00				2 50		4,500 00
78..		280	245	35				5 50	1 50	3 25	1 30	3 25	3 37	2 60		108,000 00
79..		32	29	3					1 87				2 50	2 26	2 75	9,101 88
80..		100	81	19										2 41		26,444 59
81..		96	44	52											2 50	21,339 48
82..	44	27	17	34	9		1 50	1 50	2 75				3 00	2 25	8,062 31	
83..	60	45	15								2 25		3 00		21,000 00	
84..	71	66	5	69			2 00	1 67					2 69			
85..	70														23,139 94	
86..	250	83	167					1 53	2 00				2 25		35,660 99	
87..	45	42	3	20	16	2 75	2 00	1 77					2 48		8,734 59	
88..	309		300				1 10	1 62	4 50		4 00		2 53	1 75	85,131 42	
89..	36	18	18				1 73						2 22	2 50	12,863 26	
90..	85	87	98					1 67		1 00			2 08	3 50	51,850 79	
91..	Tacks and nails	309	209	100	200	20		1 50						2 87		7,500 00
92..		50	44	6											4 00	14,701 00
93..		75	75		33	35		2 25		2 00	75	1 50		2 21		138,617 89
94..		520													2 25	
95..	Tin and sheet iron	165	145	20	95	30		2 00		75						
96..		17			14	3			2 33		1 00			2 31	3 00	
97..		138	121	17					1 25					2 31	2 37	30,136 76
		10,716	6,573	3,398	2,309	649										3,056,025 63
Average amount paid per day to each person employed, \$2 18.																

Average amount paid per day to each person employed, \$2 18.

As a result of these tables we may note that they report \$2 18 to be the average daily wages paid each person employed, and reckoned upon the amount paid each person for the six months, \$285 18, will show an average of 130 days to have been worked. This is substantially a close corroboration of the correctness of our tables, both as to classification, wages and actual average annual earnings, for included in these returns are all the foremen, who in our tables are classed among the full time hands, or those whose time goes on steadily whether business is full or lax, whether machinery is running smoothly or is broken, whether agreement exists between employer and employed, or the work is idle in consequence of contest. Suppose, for the sake of the illustration, we try to present these results in the same form as ours, and see what the effect will be. It will be seen that as these returns are made there are only a few of them in which foremen, as such, are named, and their wages given. Yet it is no violent assumption to say that the number of foremen, or persons that we have classified as such, will be one in twenty, or 5 per cent. of the whole.

We will take of the whole number given..... 10,716

For Foremen..... 5 per cent. of the men, or..... 503
 Skilled workmen, 75.....dodo..... 7,550
 Laborers20.....do.....do..... 2,014
 Young persons, the number returned..... 649

We propose to pay these several classes at the averages of the rates of wages given as paid to the several classes in the tables. As to our classification, a reference to the returns to this office, from similar industries in this State, will demonstrate how near right or how far wrong we are in that, thus :

Rate per day....	CLASS.	Number	Earnings of each class per day...	Earnings of each class for half year	Actual avg. earnings for half year.
\$4 09	Foremen	503	\$2,057 27	\$268,742 54	\$524 27
2 30	Skilled workmen	7,550	17,865 00	2,268,404 95	300 45
1 65	Laborers	2,014	3,323 10	434,099 27	215 41
1 00	Youth	649	649 00	84,778 87	130 63
Total of Mass. tables.....		10,716	23,894 37	3,056,025 63	.....

When it is taken into consideration that the trades enumerated in these returns are those in which wages are understood to rule the highest in this country, which is made apparant by the wages quoted alike in the returns received at this office, and in those in the foregoing Massachusetts table,

the corroboration they furnish of the substantial correctness of our conclusions is peculiarly and strikingly forcible. Our purpose has been in all we have presented thus far, to show as nearly to demonstration as the data would admit, not only what the average earnings of Pennsylvania workmen are, but what proportion of the whole have adequate means of support, and what proportion are inadequately paid. That the results are disappointing, and to some extent alarming, is the least that can be said of them. It has been so long the prevailing custom to speak of our peculiar social and political structure as developing the most beneficent liberality of compensation to the wage-worker; so long our standing boast that the American workman is the best paid in the world, and the happiest and most contented; it has been so customary to regard his expressions of discontent, as the effect of the mischievous interference of blatant demagogues, or as the frolicsome or vicious colt-like kickings and insolence of pampered fatness; that the presentation of the hard but unquestionable fact that there is in the State of Pennsylvania a horde of laborers, constituting an army, in numbers greater than that of the Potomac when its ranks were fullest, who live and rear their families, in some sort, on an average income of less than four hundred dollars per year, must strike upon the consciousness of the thoughtful publicist with startling effect. It would have been a far pleasanter task to have reached results the reverse of these. But if this inquiry is to accomplish any good it must be made with a view to the development of the truth, however unpalatable it may prove to be. We have noticed before, that upon inquiry being made, the wages that are quoted are always higher than are realized as averages; and this is true, not because of any purpose to mislead, but because the demand for work is almost always greater than the demand for workmen.

It is not then our purpose in this report to charge upon any class intentional misrepresentation, but simply to present the situation as it is. To illustrate: The very excellent and suggestive essay read before the Philadelphia Social Science association, April 25, 1872, by Mr. Lorin Blodgett, one of the most thoughtful and experienced statisticians, and one of clearest and most conscientious *politico-social* writers of our day, quotes the wages paid in that city, as he found them to be upon careful, persistent and industrious personal inquiry. So impressed was he with the apparent sufficiency of the wages, and consequent prosperity of the wage-working class, that he is convinced "that a greater than temporary success has been gained, and something far beyond mere monetary triumphs have been secured." And yet, the failure of one speculative establishment in that city, and that one not engaged in productive enterprise, has proved sufficient to spread the terrors of general bankruptcy over the whole country, lock up the circulating medium of the people, stop for a time the wheels of industrial progress,

and throw upon their reserves for support a great proportion of this *prosperous* wage-working population. With what result? within three weeks the presence of privation became painfully manifest; in four, it stalked ghastly and obtrusive upon the streets; within six—the rumblings of a gathering storm springing from the want and desolation of thousands of unemployed wage-workers, warned the thoughtful and philanthropic to prepare to combat the consequences of extreme poverty among the working thousands.

These facts that are patent to the consciousness of every observant citizen, are additional corroboration of the truthfulness of the lesson our tables of approximation teach; which is simply, that in the greed for material success through inexorable competition, that item of cost being the easiest reached, and the most readily reduced, the measure of wages is made “the dead level of starvation prices.” In other words, the worker being present, and perhaps too poor to move, just as much is paid, and no more, as will keep him at his work. This, it is apprehended, is not the deliberate and intended work of any man—or class of men; but the vice of the system. The whole force of our social and educational influences being directed to teaching as the one great purpose of life, the acquisition of wealth, every personal ambition, every public aspiration has become tinctured and colored with the vice, until no private act is regarded; no legislative policy debated, except in reference to the bearing it may have upon the promotion of pecuniary success.

The paper of Mr. Blodgett alluded to here, is so full of useful suggestion, even where his anticipations have not been realized; his table of *quoted* wages so evidently the result of careful inquiry, and the remarks that followed the reading of it made by other members of the association, are so indicative of the direction of thought among our people on the subject, that we insert in this place, without hesitation, the whole of the document:

THE CENSUS OF INDUSTRIAL EMPLOYMENT, WAGES, AND SOCIAL CONDITION, IN PHILADELPHIA, IN 1870.

BY LORIN BLODGETT.

[Read before the Philadelphia Social Science association, April 25, 1872.]

The social condition of the classes employed in the various industries is the foremost question, almost, in all parts of Europe, and while feeling little direct pressure on this point in the United States generally, we have still had some striking and painful experiences; and we have a general, though vague, expectation that dangers of a serious character await us almost at any moment.

In Philadelphia, however, we have an exceptional condition on more than one point. Exceptional in regard to the extent to which purely productive industry has been developed, and again in the almost entire exemption so far enjoyed from the agitations and conflicts that have occurred elsewhere. We have had no strikes here, strangely enough; and in looking about for cases of antagonism between proprietors and workmen, we can scarcely find an instance. No matter how large or how small the establishment, and we have many of really enormous proportions, there is rarely or never an occasion for difference between employers and workmen. Some of the greater iron works almost approach the co-operative system in the harmony of masters with workmen, and in the frequent exchange of acts of kindness and substantial benefits. Fully a hundred well-known names can be cited from all the larger establishments of the city, with the same grateful suggestion of generous enterprise on the part of the proprietors, and the same emulation in faithful offices on the part of workmen.

Indeed, I think the evidences strong, that a greater than temporary success has been gained, and something far beyond mere monetary triumphs have been secured. I believe that an era marked by far higher social attainment on the part of those who are employed in productive industries has begun; that the people not only may be, but have already been, elevated to a position vasty beyond what they have heretofore occupied. I believe that the long existing and apparently insuperable antagonisms of labor and capital have been shown to be founded in gross mistakes and erroneous systems. Why are we rewarding the productive classes with an hourly increasing measure of success, if there is no consciousness of a landmark already passed in the road of enlightened and intelligent industry.

If we have indeed gained a point beyond which we may not again recede, and have established a condition of prosperity that other nations have not so much as believed possible, we may justly mark the centennial of our history with a triumph scarcely less than that with which it began. The liberty of labor, and the power to command with it all the social attainments of our advanced civilization, is quite as practical an achievement as that which gave us political liberty.

There has been possibly too much discussion of industrial questions from the mere point of profit as business ventures, and too ready a disposition to adopt or abandon any principle or practice the moment it was feared that for the time it would not pay. For this reason proprietors in times of temporary depression have been ready to stop work, to abandon the property and disperse the capital employed, when a few months of patience with adverse circumstances would have brought around a new period of demand, and would have saved for productive uses a vast amount of means

that in the breaking up of large establishments is inevitably lost; and while we cannot deny the right of the proprietor to protect himself, we must regard these changes as great social misfortunes.

The highest point to which any condition of industrial development can attain is that which brings the productive classes and the intelligent citizen nearly, if not absolutely, together—one that in all essentials makes them the same. To most nations this is scarcely less than a dream and a delusion; a result frequently hoped for by enthusiasts, yet practically beyond the limits of possibility. Indeed, in most European countries, it is painful to observe that the line of separation constantly grows broader and more absolutely impassable; the workman in productive labor sinking to a state of helplessness and degradation, and ceasing to be capable of the distinct and independent existence which constitutes a citizen.

But in the industrial development that distinguishes this city and its surroundings, there have always been features of peculiar interest, marking a large departure, originally from the standard of other manufacturing districts. Starting with greater comparative intelligence, skill and persistence, our people have gone on to create a higher social and civil state, until now it may safely be said that no other community equals—certainly none excels—us in the measure of advancement we have attained above mere helpless, brute, factory labor. And we have really a phase of social science worked out to practical results; one which we may take up and discuss in quite another tone from the usual strain that belongs to manufactures, as elsewhere understood.

I have, as before said, sometimes thought that those who advocate industrial development, or the policy which leads to it, permit the bald monetary question of profits or losses to become too prominent, and to obscure the greater question of social development. When a controversy is supposed to turn on a question whether a manufacturer shall make money, and that nominally at the expense of a trader or a consumer, it is not easy to bring out the proper relation the case has to society as a whole. Industrial development is in fact not a question of division in which one gets what another loses. There is no loss on the part of either trader or consumer, and the gain is shared by every member of society.

To repeat, on reference to aggregates, the simple facts for this last year, 1871, may be roundly stated to be that a city of 800,000 people produced four hundred millions of dollars' worth of actual fabrics, exclusive of all mere sales or exchanges; and that on this mass of fabrics produced, the net profit, in the sense of values realized above the cost of values paid out, was nearly one hundred millions of dollars. This calculation goes a step beyond our exact municipal boundaries, however, just taking in such suburbs as are the city's own, and not including anything belonging properly

to any State or county near us. And it is also derived from a calculated increase of 20 per cent. in the calendar year, 1871, over the computed production of the census year ending with June, 1870. The footing for that year is, as carefully revised, \$335,000,000, to which, by adding 20 per cent., we have \$402,000,000.

From the most careful examination of the details during the year 1871, and down to the present time, I am clear that this estimate is low, and that for so much as has already elapsed of 1872, the advance over 1870 is more than 25 per cent.

The world, generally, has concerned itself with the profits of mere trade, far more than with the interests and profits of creative industry, and it is thought that wealth increases satisfactorily when a city is made a point through which exchanges pass. We have all this here; of buying and selling merely, and beyond the handing of our own manufactured products over to dealers, we probably conduct a trade of \$500,000,000 yearly. There is a fair profit in it, but it is a profit that the consumer pays, and that comes from some other side; it is taken from one party or person in a certain sense, to benefit another party or person. Not so with the values produced here in manufactures. These pay a profit not drawn from the consumer; it is a created profit, the creation of the active brain and the skillful hand. It is the direct wealth of powers which might, but for such opportunity, have been wholly wasted in idleness. For this reason it becomes conspicuous for the benefits it confers, and it makes itself seen and felt in a thousand forms that are not consumed with the day's demand.

I am not clear as to the most effective mode of bringing out the especial purpose of this review of the condition of our productive industry; but I propose to cite enough of what I must call, by way of distinction, social facts and results, to maintain the pre-eminence of this point over the mere money made by the employer, or even by the workman. If we are really founding an era of better relations of labor to the results of labor, let us signalize it as effectively as possible. But if we are merely in the middle of a jolly season of good profits for the employer, and good wages for the workman, to be followed soon by strikes, poverty, loss and degradation, we, or at least I can speak for myself, are in a state of singular delusion. For our people do not and will not believe that evil impends over them. They will not cut down their expenditures nor circumscribe their living. For five or six years past they have at intervals been menaced by threats that they would speedily fall into ruin to balance their account of present prosperity, but they have so far been secure.

And is their social state secure, or reasonably secure? Is it one which may continue to exist, and ought to continue to exist?

Is it the natural fruit of good laws, of intelligence, industry, and steady occupation at the work we find to do?

I believe it is. I hold it clear that whatever threatens or wrecks our present prosperity is wrong and outrage. No matter whether from general laws or from social disorders, we ought not to have any worse state; and we ought, on the contrary, to go on to higher and higher social prosperity.

In proposing to present some of the more general results of the industrial census of Philadelphia recently completed, I should, perhaps, explain something in regard to the census machinery, or the conditions under which an account of the facts is taken. It was long since deemed important, next to the mere enumeration of the people, to inquire into their social condition, their occupations, and modes of living. At present there are several schedules, as they are called, other than those of mere enumeration of persons, the two more important of these being described as, No. 4, *The Products of Industry*, and No. 3, *The Products of Agriculture*. In 1860 these constituted so large a mass of returns, as to make a quarto volume each, and that of population being another, there were three volumes of statistical results. It is significant that these two alone, of business pursuits of the people, are raised by the fundamental law of the census into great social importance. There is no inquiry into ordinary mercantile pursuits, whether in buying and selling at home, or in importation from abroad. Our manufacturers have sometimes thought the government inquisitive beyond reason in requiring this return of manufactures, but there is in this very demand, an acknowledgment of the higher position of the pursuit itself. The inquiries are made because the facts are essential to the public welfare. What is produced, either from the soil or from the hand of skilled labor, is in a great degree a creation, so much absolutely added to the national wealth.

Much difficulty has existed in obtaining correct and full returns of manufactures, because of the real or supposed trenching of the necessary inquiries on the seclusion of business which is often indispensable to success under the sharp competition of modern processes. The schedule inquires, first, into the capital invested, next, the kind of power employed, the number and power of steam-engines, and the number of distinct pieces of machinery. Next the number of persons employed, men, women and youth; the aggregate of wages paid, the quantities and value of raw material used, and the quantities and value of manufactured products. All this, however, is applied only to establishments manufacturing more than \$500 in value within the year. So that many thousands of dollar's worth of articles may be manufactured in families or elsewhere, where the value is less than \$500, without being taken into the account.

All this work is done through the United States marshals, by special assistants temporarily employed for that purpose, and not by persons appointed by, and responsible to the census office itself.

I will not stop to speak of the imperfections necessarily belonging to the present census system, since by special efforts they have been almost completely surmounted, so far as this city is concerned. The whole system is absolutely inadequate to the importance of the desired result, and to the vast development of the last decade particularly. The country has grown, industrially, to much more than twice its magnitude ten years ago, and it has become almost impossible to show the full proportions of its importance through the inadequate machinery of the old census laws, simply because of this magnitude, and of the elements of competition and business energy infused into every branch of industry.

And as to forms themselves, and the precise inquiries to be made, there is something needed in the enlargement of what relates to the social state of those employed—more full details as to age and sex, and as to the wages paid for different grades of skill. The present schedule only divides the employed into three parts—first *men*; next *females*; and lastly, *children and youth*—being those of both sexes under fifteen or sixteen years. The wages are required only in the aggregate, including everything paid as wages for the year. Further statistics are necessary to trace the family relations of the employed, among which should be the number of heads of families, the number of full workmen not heads of families, the number of those not skilled or full workmen, yet above the age of boys. And so of the females. At present most of this desired information can be obtained in but few cases, and must be inferred or estimated for the remainder.

I repeat, as an explanation of the difficulties and imperfections of the present census, that every department of active competing business, whether in manufacturing or simply in selling, involves great labor and delicacy in the merest attempt at a census. It is business of the most driving and urgent sort to the proprietor, and he cannot afford to risk anything by throwing its reserve aside and opening it to the exact knowledge of the curious or competing. While some needless solicitude exists on the part of proprietors, there is still the reserved right which no one can dispute; and care must, therefore, be taken in framing the inquiries of a census, so as not to ask too much, and by that means to merely get refusals or misleading statements. We have nothing to do with the profits of the proprietor, and indeed little concern with other matters than the facts that relate to the social condition of the employed and the aggregate values produced.

On this point it is doubtful whether the new census law, so much hoped for to take the census of 1870, but which finally failed of enactment, did not go as much beyond proper limit as the old or existing law falls short. We have yet to see exactly how the present law has been enforced, and whether it has not been evaded, simple and few as its inquiries were. Indeed, I am informed that in some cities the want of care in preserving the information given from what may be called individual publicity, reduced the return to little more than half the true account. This is the reason given, by proprietors at least, for deficient aggregates of the production they are really interested in making generally known in the aggregate. If one-half of the iron product of this city, or of Pittsburg, for instance, should fail to be included in the census return, a public injury would be the consequence ; yet want of care in protecting individual statements might force proprietors to withhold, in simple self-defence, what is so valuable even to themselves in the summaries which fix the character and credit of a manufacturing city.

In considering, as has been suggested, the proper duty of this city to make its exact position known on the occasion of the centennial celebration, this question becomes important. Shall a new census be taken ; and if so, how shall it be done ? I am not prepared to answer for myself, further than to say that no greater fullness of detail as to business matters is desirable than is now provided for in the United States census ; but all the facts relative to specific wages, age, social condition, &c., of persons employed, might be given much more fully and with great advantage to ourselves. There is nothing on these points that will not greatly credit and benefit us to make fully known. We have no poverty or suffering to disgrace us ; no concealed enmities of employers and employed to endanger the security apparent on the surface. There are no crowded tenement houses to represent inability on the part of the employed to become citizens ; none of the unsettled aggregations of mere laborers, who drift about as employment is attainable in one place and fails in another.

Though reluctant to attempt classifications on the imperfect details of the present census as to the social condition of persons employed, it may perhaps aid further inquiry to make some estimates based only on the best judgment I have been able to form after a year of observation. We may assume that our productive industry now employs 100,000 men and 40,000 females ; these figures being but little in excess of the exact summaries for the census year, (which are 92,112 men, 35,478 women and 10,286 boys and girls.) Of these, perhaps one-fourth of the men are heads of families, and one-eighth are minors under 21 years. Of these minors, more than half do full work and draw full wages, leaving 5,000 or 6,000 to be properly described as boys, generally at half wages. The largest number is of unmar-

ried, or non-householders, if married; and from 20 to 30 years of age. Heads of families may be said to average fully \$3 00 per day in wages, or \$18 00 per week; the next, or greater class, average \$2 50 per day, or \$15 00 per week, and the minors \$2 00 per day.

In female labor the estimate is not so easy. The proportion of married women is not more than one-eighth; of the next class, being grown girls or young women, or at least without families, the proportion is largest, but there is little difference in wages. The younger class are more numerous than the males, there being of young girls at half or little more than half wages, not less than 6,000 or 7,000.

And as to the family relations of all these, it is probable that few families are dependent on the wages of one person, on the man or on any other member, for subsistence. The average is at least two. And I think it may be assumed that every household of five persons has—as an average, of course—one of its members at \$10 to \$12 per week, and one at \$15 to \$18 per week, the total of resources being, say \$28 per week.

I refer to these estimates to show how definitely we may account for the prosperity of the employed classes, if we could obtain a census of exact details.

Again, it should be said, that all this is confined to manufacturing industry alone; all other employments being out of the scope of the present inquiry. A rough estimate would give numbers *employed at wages in all other pursuits* at about three-fourths of the numbers employed in manufacturing industry, and their social condition, on an average, nearly the same.

I am in doubt whether in proceeding to illustrate the results of our census it would be acceptable to you to go into full statistical details, and to recite the lists of classes with the aggregates of capital, machinery, persons employed, wages and results in manufactured values for each. For myself, I am fatigued with the mere figures, and would prefer only to show you how formidable they are; summing up at the end of this paper two or three condensed tabular statements of wages paid in the several employments and to the several classes, of age, sex and skill, so far as I have been able to separate them.

And for the totals of production, after citing a few from the preliminary publication before us, I will refer you to a condensed table here attached, and to the full census when corrected and issued.

It has been suggested that some comparison of the manufacturing production to the import trade be made here, and while I do not undervalue importation by any means, it is proper that the relative magnitude of the two interests should appear. For the fiscal year ending June 30, 1870, which is identical with the census year, the imports of Philadelphia from foreign countries were \$14,500,797, at gold value; to which add one-eighth,

would make \$16,313,397 in currency value. Our manufactures for the same year reached \$334,852,458 in value, or *twenty and one-half times the amount of imports*. Clearly, on the score of magnitude alone, we must accredit our manufacturers with a respectable position in the business interests of the city.

One of the most important of the points I wish to bring to your attention is the very great diversity of industries, and the completeness of the representation of the wants of a highly organized social state, and a rich and prosperous people. The power to consume and the power to produce, are alike and equally striking. In fact, they always go together, and here is to be found the key to much error of national policy, particularly in European States, where the amount, or proportion of wages paid to productive labor, is thought to be the least of national concerns, so that the laborer is not a pauper.

No adequate discussion of the true relation of wages to national prosperity has yet appeared, but I venture to assume that no other single fact has such permanent and overruling importance; nothing is so vital to the prosperity and endurance of a highly advanced nation, as that the productive industry of its people shall be fully employed, and at the same time liberally paid. To be fully employed, for the time, at wages merely sufficient to maintain existence on the part of the employed classes, is to place its interests on the very border of a gulf of disorder and of suffering. Strikes, famines, spasms of great production, alternating with intervals of no production at all, with many other evils, are but the ordinary and constant attendants on a state in which labor is paid the smallest pittance of wages.

Of course such labor cannot of itself consume anything of consequence. Markets are therefore to be sought and found outside of its circle, and away from the nation itself, probably. Diversity is not to be developed except by accident, and the nation or people who so occupy themselves, that is, in manufacturing for foreign countries, are not represented in their products, as we may say. What they do bears little direct relation to what they are, or to what they require.

The point I wish to make here is that in what we do, and in what our productive industry is, our people are fully represented; the products all belong to what we are, and to what we require. To illustrate: the silk weavers of Lyons and St. Etienne produce rich fabrics, which very few even of their wealthier classes consume as we consume, and the laborers do not consume at all. The laces, the porcelains, the bronzes, the thousand rich and decorated fabrics of France, Belgium and Central Europe generally, go almost wholly abroad or out of the country of production to be consumed. We revel in elegant fabrics of both European and American

manufacture, and, as years pass, the central point of skill and taste in many of these fabrics is transferred to our own city, and brought within the immediate reach of those who consume and require them. Of the crude materials for these finer fabrics we are large consumers: raw silk, cashmere, mohair, alpaca, and other luster wools for worsteds; sable, ermine and other furs; Persian lambskins, East Indian pearl shells in large quantities; the bases of all known perfumes; all the fine cabinet woods; immense quantities of fine marbles; minerals for porcelain, with more of gold and silver than any other city of the world consumes in manufactures. In these and many other rich natural products, there is no local market greater than that furnished in this city. And for the reserve of coin which is popularly supposed to lie waiting a return to specie payments, we shall be compelled to look to the melting pots of our artisans; it has been industriously picked up to make watch cases, gold leaf and silver-wares for ten years past, until there is scarcely a dollar of coin outside the United States Treasury and a small stock held by the banks.

We are, therefore, not great in iron, coal and petroleum alone; nor in the useful arts as distinguished from those of skill and elegance. We are, as I believe, symmetrically developed, and are prosperous and fortunate in all the relations of employed labor to society because of this symmetry.

It has been my duty and my choice to give a very large share of attention for fully fifteen years past to the actual state of productive industry in Philadelphia. I made a very thorough examination of it in 1857, and again an exact and careful one in the census of 1860-'61. And finally, in the census of 1870-'71, I have devoted more labor than I can well explain to the verification of the statistical details of the recent census. These statistical details should, as I have said, be accompanied by all attainable facts bearing on the social state of those employed; particularly the wages paid, the manner of living, and the measure of education and intelligence that prevails. Nothing less than personal observation can show all these conditions fairly, and no mere statistical aggregates can tell the whole story of social growth.

First, however, to use the simple aggregates of numbers for some part of the illustration, and taking the department of productive industry alone, we find that there are 9,000 employers, or proprietors, and very nearly 140,000 persons employed at wages. The year's wages exceeds \$62,000,000, which is, excluding the holiday season, about one and one-quarter millions per week. This account of wages is surprising beyond that of the numbers employed, and in comparison with a total of \$27,000,000, only, paid as wages in 1860, it marks a great advance. The increase of numbers employed is but one-third, while the wages paid are more than

double. In this account of persons employed and wages paid there are some qualifications that should be explained: First, that the account embraces shifting items of detail, in the coming in and going out of individuals, the extinction and renewal of firms, and the want of absolute completeness in the canvass itself. In many cases the persons engaged, both as proprietors and workmen, in a manufacture are all enumerated, although the proprietors of course receive no wages. The result in my judgment is, that the numbers employed are more fairly reported than is the aggregate of wages paid—which is never more than full for any one establishment and is often short returned, or wholly absent—and I would add two or three millions for such omission to represent the actual receipts of wages in all the departments of manufacturing industry. In 1860 an entirely full return would have been about \$28,000,000, and in 1870, about \$65,000,000.

Comparing these amounts of wages with the aggregates of manufactured values, we find them each about twenty per cent. of the production, which is a fair proportion, and justifies the amending of the wages return for 1870, as proposed. A low grade of manufacture, or one where little steam power is employed, calls for 35 to 40 per cent. of the product to be paid in wages, while a very valuable material and a high steam power used in manipulation, may reduce the proportion of wages to 15 or even to 12½ per cent.

The more striking features of diversified skill with liberal compensation are presented in the employment of females, and here even more decisively than elsewhere is the occupation associated with the best evidences of advancement above the grade of factory labor. Even in the great establishments devoted to textile fabrics, cotton, woolen and silk goods, the standard of personal character is high, and is rapidly advancing in many departments, and in none retrograding. The arts of design, and the invention and construction of patterns for prints, for jaquard loom-weaving in shaws, carpets, fancy woolens, braids, ribbons, embroideries, etc., are sedulously cultivated in a hundred establishments, and are already developed to a degree far beyond the public belief.

In one conspicuous establishment the engraving of printing rollers is conducted by highly skilled and amply paid female hands. In several establishments of this class, that is, print works and weaving factories, designs for printing and weaving are originated, and the products of their skill are far less frequently seen by our own citizens than by the people of other cities and even of distant States; it being a peculiar feature of our industry that the most extensive lines of these goods are sent to New York for distribution, and are consumed by the inhabitants of other and chiefly of the Western States.

Again, in the fine and decorative arts; in painting, engraving and photographic work; in chromos and color painting; in drawing and paper decoration, there are high grades of skill developed. The arts of embellishment are most successfully practiced on thousands of articles, even on those usually described as articles of use rather than of ornament—lamp-shades, fire-screens, printed cards, and a thousand that might be enumerated. For nine tenths of all that beautifies and interests us in this useful class, as well as in finer and more artistic fabrics, we are to credit our own people, and not foreign countries, or distant cities in our own country. And in all this, female labor finds fair wages and pleasant surroundings. Bank note and stamp printing belong in the same category, and this may be cited as an instance in which private business establishments pay very nearly the highest wages which are paid in the United States treasury or the United States mint. It is skill, trustworthiness and intelligence that command this remuneration; such skill as belongs directly to productive industry also, and constitutes a part of that general elevation of the standard we are considering.

The vast extension of the manufacture of light articles of hand-woven and knitted fabrics of wool, worsted, cotton and silks, affords one of the largest single departments of attractive employment to females. Including silk trimmings, fringes, etc., the census shows that 4,000 females are directly employed at productive labor alone, exclusive of those who sell these articles in stores. Nearly nine hundred of these are employed on silk, or silk-mixed goods, including upholsterer's cords and fringes. Many of these being young, the average of wages is not high; it ranges from \$4 to \$20 per week, the average, including a large number of young persons, being about \$7, or \$350 per year; and the total sum paid as wages approximating \$1,400,000 per year. Adults here earn an average of \$10 to \$12 per week, or \$500 per year. In view of the light and pleasant character of the work, its cleanliness and tastefulness inducing habits of person and of character corresponding in these respects, it is one of the most gratifying evidences of the social advancement belonging to our well-rewarded industries.

Next to this, perhaps, the lighter departments of clothing deserve notice: collars, cloaks, millinery, dresses, shirts, etc. The number of females employed here is not less than 3,800, and their wages are higher, as well as the standard of skill superior. They receive an average of \$9 per week, or \$450 per year, and earn an aggregate of \$1,700,000 in the year. A very large number not wholly occupied with manufacturing, but selling also, as hundreds are who are engaged in millinery, dressmaking and clothing establishments, have not been recorded in the census, and are not here included. They earn as much, though not always in the form of wages received; and, as a class, they are pleasantly situated and well remunerated.

The very general practice of uniting in one establishment the manufacture and sale of light articles of this class increases the number of small proprietors, and greatly benefits all.

In heavy clothing, woman's work is more rough and severe. The number returned as in this employment is very large, 5,954; but the account of wages is not so easy to obtain, all being done as piece work, and the great majority working at their own homes for proprietors who give out the work. Not being constant or continuous, this labor is probably paid not more than \$6 per week; it fills up the unemployed time of a woman who has household duties on her hands also, and it is an adjunct of the means of living of a family, rather than the principal means. But we see that fully \$1,750,000 per year is added to the earnings of females from this source.

In boot and shoe making a peculiarly favorable condition now exists for female employment; and the numbers so engaged are about 2,500. The finer kinds of shoes and boots for children and ladies are most extensively made here, a single establishment often employing 250 to 300 females, with as many males. The work is greatly changed for the better, as regards taste and even elegance, and the hundreds of girls and young women leaving one of these establishments at 6 o'clock, would, from their dress and demeanor, be supposed to come from a school or lecture room, rather than a factory. I have seen with peculiar pleasure these incidental evidences of their pleasant and improved condition on many occasions, and have shown them with pride to strangers accustomed to the low standard of personal appearance and character belonging to European establishments of a like grade. The average wages are here \$7 00 per week for females; \$350 00 per year, and \$875,000 in the aggregate.

The umbrella and parasol manufacture has not been included in the previous statements. It employs over 1,000 females, and pays nearly \$8 00 per week, or \$400,000 in the aggregate. The standard of taste and skill is here generally high.

In factory work more distinctively, or in mills with power-looms, on cotton and woolen goods, the number of females employed is very large; about 8,000 being directly employed in such factory work, and not included in the preceding summaries. But even this grade is far in advance of the condition it presented in 1860. Power-loom weaving, spinning, winding, &c., are of course not so cleanly employments as those above named, but the opprobrious title of "factory girls," formerly much employed, and really descriptive of a less self-respecting class, is now rarely heard, and still less rarely deserved. The wages paid are fair, and even higher than in other classes; they range from \$7 00 to \$14 00 per week, and average fully \$9 00 for the year and \$10 00 for the time employed. A large share being piece work,

and one person attending two looms, the work drives a good deal, and much is earned when at work. At \$475 per year, the 8,000 employed, earn \$3,800,000 in the aggregate; a large sum, but only a small share of the total value of textile fabrics of every class made in the city, which reached the enormous sum of \$58,500,000 for the census year.

I might go on at great length in citing details of large employment and liberal compensation for productive labor of this class, and there is nothing more satisfactory to present as evidence of the high degree of development which our industry has attained. The introduction of steam machinery, and of various superior processes of manufacture, greatly favors the employment of intelligence, as contrasted with mere brute strength. Take the commonest factory labor, and one young woman now attends two power looms, weaving 10,000 yards each of dress goods per year; where formerly one person of greater physical strength attended one hand-loom, weaving not more than half as much each per year, or one-fourth as much in all. Generally the improvements of the past fifteen years have fully doubled the productive power of every person employed, and what is better, have enlarged the basis of employment so that twice as many can be effectively employed.

The proportion of young persons now employed, and the wages paid them, form the least satisfactory part of our statistical returns under the census. It was required, by the terms of the law, that all under 16 as males, and under 15 as females, should be entered as a separate class, described on the forms as "children and youth." This was, however, very imperfectly complied with, and no distinction of sexes was made of those so entered. I have thought it safe to assume that the number of boys and girls was nearly equal, and that the footing I make of the totals at 10,286 is approximately correct. There are 5,000 of each, in round numbers, therefore, who are minors in fact, or less than adults in skill as well as in years, and receiving less wages. Indeed, there are some two or three thousand more who are partially employed, as it may be said, and are earning little or even nothing at regular wages, because they are learners. Generally, however, quite young boys or girls get \$2 to \$3 per week, if living at their own homes; and for all these minors an average of \$3 50 per week would be nearly correct. For a year, with its frequent interruptions, the total earnings must be put at less than \$3 50 for the whole number of weeks, yet at \$3 average, for fifty weeks, and 10,000 employed, the total compensation paid is \$1,500,000.

Much has been recently said and written in regard to the premature employment of children and youth in manufacturing establishments. It is certain that legislative restriction has been necessary in England, and in Massachusetts, Rhode Island, and perhaps other States. But so far as my

personal observation goes, no such necessity exists in Philadelphia. It is rare that grinding poverty compels premature employment, and when employed, these half-grown persons or children are at light work, and with interruptions for some months of every year. I have seen few cases in which want of education or personal degradation became apparent, and many instances exist in which our conspicuously honorable proprietors of extensive works take especial pains to favor education, and all proper relaxation on the part of those employed by them. The names of Bullock, Dobson, D. S. Brown, Campbell, and many others in textile fabrics, ought not to be passed without mention; and it only needs the experience of a visit to the hundred magnificent mills in and near the city, to assure any citizen that we are already far above the low level to which the employed children and females of other countries have fallen. This result is chiefly due to the high and resolute character of the proprietors, who prefer to fight their way to success with the aid of their work-people, and not in antagonism and hostility to them.

And finally, as to the heavy work of manufacturers, the work and wages of men only, the same general amelioration exists. As I have said, there is nothing heard of strikes, or of hostility between proprietors and workmen. There are 92,112 adults, or full men, in the lists of persons employed at wages in manufacturing pursuits in this one city; a productive force really enormous, working as it is with over 2,000 steam-engines, of the aggregate power of 50,000 horses. Almost unconsciously to most of our citizens, this vast machinery does its daily work, making fabrics of iron, wood and textile fibers largely exceeding one million of dollars in value for every working day in the year. If these ninety thousand men, officered by their ten thousand proprietors, were to defile through our streets in military order, they might convey some adequate impression as to the power we so little regard, and if their daily work, or one day's work of them all were set out in due order as one of the parts in the centennial exhibition, it would be admitted that this city had the right to leadership in that great event.

As to the wages paid adult men in the year of the census, it was not practicable to separate either the details or the aggregate from the general account of wages. Formerly men were paid twice as much as women; now the proportion is as three to two, probably. Wages fell somewhat heavily in 1868 and 1869, from the high figures of the war, but since 1869 they have advanced rather than receded further. Many classes are paid \$21 per week or \$3 50 per day; many other classes more than this, and skilled persons at piece work earn even \$5 and \$6 per day. Mere laborers of course decline to \$12, \$10 and \$9 per week, which last is the lowest rate paid to any laborers assuming to do a man's work. All skilled labor is really

high, showing that the door is open to a scale of wages affording abundant means of living, to all who have the capacity to work with skill at all.

And as to the mode of living, it is generally true that skilled workmen live in their own houses, or, at least, in single houses; that they maintain their families with ease, and that education, with all the accompaniments of personal comfort, are secured to their children. There is little or no living in rooms, or in tenement houses, except on the part of some wholly unskilled laborers. This city is conspicuous for its great number of dwellings of abundant neatness and comfort, owned and occupied by single families whose whole maintenance is from manufacturing industry. And these houses, if rented, pay \$15 to \$25 per month, and, if owned by the occupant, taxes, interest and other expenses represent a close approach to the same annual expenditure. That all this, with the current cost of living and the frequent expenditures for other than mere necessities, is easily borne by our mechanic and workmen, is sufficient proof that his resources from wages are comparatively ample.

I should be glad to be able to make a more exact analysis and illustration of the specific products of industry here than I find I have time or space to do now. The lead is taken in textile fabrics: cotton, woolen and silk goods, which we produce to the enormous aggregate of \$58,500,000. Next are iron and steel manufactures, \$40,800,000 in value, exclusive of a great variety and large aggregate of other metals, and of manufactures of iron with wood, as wagons, carriages, implements, etc., usually classed as half iron.

The literary industry of the city, in books, newspapers, etc., is \$12,710,000 in monetary value; while books alone are \$4,500,000.

On every side, in fact, we are met by footings of value so large that they startle us in comparison with the bald and meagre returns of industry elsewhere. The clothing manufacture is \$16,210,000 in value; that of boots and shoes, \$10,700,000. Perhaps this last named has more rapidly advanced within the last decade than is generally supposed. The M'Kay sewing machine, by which soles are sewed on in an instant, and far more securely than by hand, has greatly improved the manufacture of shoes and boots for the trade. And not only are both boots and shoes far better and more durable now than in 1860, but their price is even less. Skill, capital and improved machinery have won especial triumphs in this department, not less than in so many others.

I hesitate how definitely to refer to the many triumphs of our manufacturers in special products, in fear that I may trespass on some of the proper rights of reserve belonging to industries often contested between us and Europe; but I may say generally that at least fifteen or twenty leading articles, in which the values made here now exceed half a million dollars

each, yearly, have been won in the last ten years absolutely as against foreign competition, and that the markets of New York, as of all other cities of this country, take now no other than our own supply, sent from Philadelphia manufacturers. In woolens and worsted goods this is most conspicuously true; but in iron, steel, machinery and other products of the most diverse character there are frequent instances. The establishment of a new industry in this manner, to take the place of important articles previously wholly imported, is a feat of generalship, courage and perseverance, worthy to crown its author with knighthood. I know several such in which, singly, the saving to the country counts millions already; and this saving is not only on the aggregate sum previously sent abroad, but on the price in detail to the consumer. In almost every case the present price is far less, and in several known to me it is only about half that which the article bore when wholly imported.

This important fact is too little observed by the public generally. Every established industry has saved us largely in present prices, exclusive of its thousand other benefits; and every new one founded and made successful, cheapens to the consumer the article it produces. With the principles concerned I do not propose now to deal, but the facts I am bound in duty to state as I find them and refrain from using the illustrations I find to my hand only; for the reason that a census to be faithful must be confidential, and the confidences of a proprietor I cannot violate.

It is often supposed that the industrial production of the country is a passive, and to a great degree a helpless interest, without the intrinsic vigor and enterprise which belongs to commercial pursuits. There can be no greater error, at least so far as the new or modern era is represented in our own city. No ventures in foreign trade can exceed the courage, foresight and energy requisite in founding new industries. I had very recently from the lips of one of the most successful of these, who now produces half a million of dollars in value yearly of goods which previous to 1865 were wholly produced abroad, some explanation of the specific risks and losses necessarily incurred in transferring the seat of a great manufacture from Belgium to Philadelphia. Business prosecuted persistently for many months at a foreseen loss of thirty or forty thousand dollars, and investment to the extent of twice this sum in machinery, the cost of which would be wholly lost unless the victory is won, are but illustrations of the risks, and representative instances of enterprise.

For myself I have a degree of respect, and even admiration, for these generals of the army of wealth producers, which I hope may become universal with thoughtful citizens. The bravest and the coolest of those who risk personal ease and accumulated wealth for the attainment of new and greater public benefits, cannot go beyond these men in achievements. Let

one not acquainted with those greater facts enter an iron-mill where the power of eight hundred horses and twelve hundred men is directed to the production of a single description of wrought-iron work exceeding three millions of dollars in value in a year ; or, again, where eighteen hundred men and five hundred horse-power finish a powerful railway locomotive every working day of the year. In still another giant establishment nearly eight hundred power-looms, with nine hundred attendants, manufacture worsted goods at the rate of ten millions of yards per year ; the aggregate value counting as many millions, nearly, as of the iron works first cited. More than twenty establishments exceeding one million of dollars in annual production exist within the city, and at least ten exceed two and a half millions each ; the highest closely approaching five millions. At one ship-yard four gigantic iron steamships are now rising simultaneously on the stocks, a product new since the census of 1870, and not included in its figures, or in the aggregates I have cited.

In short, if any citizen will make these great facts personally known, he will feel that a power far beyond his previous conception is working around us, not quite silently to him nor yet obtrusively ; a power great enough to bear us on a steady course of prosperity, I trust, at least until the rounded centennial period shall give us opportunity to make its greatness and its national beneficence widely known.

I have purposely refrained, as I have before said, from burdening you with detailed statistics in this paper. By the great liberality of the census office and its enlightened superintendent, General F. A. Walker, we have been enabled first to perfect the official record itself, and to gather and authenticate all the facts. Now we are also generally permitted to make them public without other reserve than belongs to the proper security of individual establishments ; and under this permission a careful and complete tabular statement is nearly ready and will soon be distributed.

In addition to what belongs simply to the forms of return, and the facts there tabulated, I propose to make the most complete statement possible of wages in detail, of the ages and classification of persons employed at wages ; the proportion of heads of families, of children, of females, and of other distinctions not embraced in the official forms. The previous occupation and nationality of the several classes of persons employed ; the derivation of industries themselves, and other incidents valuable, if not essential, to a comprehensive judgment of the whole case. The statement of wages paid in a large number of employments I have added as an appendix to this paper.

I may say here, however, that a peculiar assimilation, if not identity, is rapidly being established in the direction, and in the manner of prosecuting the labors of all these works. They are already Americanized, and essen-

tially distinct from and beyond European establishments in all the characteristics of better paid, more intelligent and effective labor, and greater results in productive power. One of our great proprietors spent a few months in England recently, visiting the districts and establishments making his own class of goods; and everywhere found defective machinery, unintelligent workmen, and want of improvement very striking in comparison with his own. This contrast in progress is due to the fact that neither man nor master here stops to embarrass the other by needless contests, and neither rests for a moment in a routine of work that he may by any ingenuity or any expenditure improve. The whole body of productive establishments is full of life and progress; new and magnificent structures are daily rising to be filled with new machinery and better forms of labor. A visit to some of these districts would astonish the quiet citizen who sees Chestnut street and Walnut street to the exclusion of the distant sections; the south and south-west, the north, north-east and north-west are all and alike swelling with a strong and rapid growth of industrial establishments; and these, not the traditional factories or mills, surrounded with poor tenements, and houses built for employees; but fine structures in external as well as internal management; exponents of wealth as well as enterprise, and surrounded by new, cleanly, and spacious streets and squares, fit for the residence of as many proprietors as there are workmen. The Nineteenth ward is, perhaps, the best representative of this present growth, and I beg to suggest, instead of the hackneyed trip to Europe in which well-to-do citizens indulge, an inexpensive journey three to four miles northward and north-eastward, to a district where the city may be seen to grow.

Again I refer in conclusion to what I have suggested and believed is the new era of the relations of employed labor to society in general. I claim that this personal antagonism as the world generally has it, is a fiction or a misfortune, not a necessity. Diversity, skill, intelligence, demand and compensation go together, or should go together. There ought not to be an hour's difference between employer and employed; but if the dead-level of starvation prices is the basis, there can be no rest; if there is no skill and no intelligence developed to be observed and rewarded and to stimulate the workman, there is also no rest or peace. If foreign markets, and contingencies of demand wholly beyond the reach of the proprietor are relied on, there is again great danger; and if, with other things better, with skill, intelligence and demand for products, which are after all not rewarded by such compensation as elevates the workmen to the dignity of a citizen, we may be sure that antagonism and silent or open warfare will frequently recur.

Here, however, the greater of all these dangers do not exist. The market is near at hand; prices of products are good; all forms of labor and of di-

rection are well compensated: there is the widest possible diversity of industries, and the keenest intelligence ever ready to make more and better articles, both on the part of workmen and proprietors. However unfortunate or unsuccessful any temporary effort may be, there is no lack of hope or courage; no dead-level of helplessness.

To my view this concurrence of great facts and great benefits should be the profoundest subject of interest to all deserving the name of statesmen and philanthropists. If we can preserve these triumphs of industry, and strengthen and extend them until the century of our national existence is complete, we should then celebrate them with an emphasis and solemnity scarcely less than which marks our earlier achievements in political liberty.

WAGES PAID IN VARIOUS INDUSTRIES IN PHILADELPHIA IN 1870.

The following statement of wages paid in various manufacturing and industrial employments in Philadelphia, has been carefully revised from information obtained personally in the revision of the manufacturing statistics of the United States census of 1870, and during the entire time elapsing since the census was taken.

During 1871 there was very little change, but in 1870 there was a decline of perhaps ten per cent. from 1869, and nearly 20 per cent. from 1867. It may be said that the greatest decline in any class of employments, from the high wages of 1866 and 1867, was not more than twenty per cent., and the average not more than fifteen per cent., the lowest point being reached in 1870, and the tendency in the last months of 1871 and firsts months of 1872 being to an advance.

In steam-mills of every class, and particularly on cotton and woolen goods, wages have been quite regular, not rising so high in 1866 and 1867, nor falling afterwards in 1870. Piece work wages which largely exist in the higher departments, and with the skilled workmen, scarcely changed at all. As a rule piece work pays well, reaching, as actually realized, one-third to one-half more than daily or weekly wages.

The general defect of the account of wages is the considerable proportion of unemployed time, and the defect of yearly aggregates, as compared with weekly or daily proportions. A man earning \$20 per week, for instance, should earn \$1,000 per year, yet the books of employing establishments will show but \$800 to \$900 actually paid the man; the difference representing unemployed time, and this usually due to the ease and choice of the workmen, rather than to want of work, or stoppage of the mill. The summary of wages paid therefor falls below the weekly or daily detail of payments.

WAGES PAID IN MANUFACTORIES IN PHILADELPHIA, 1870, 1871—MEN.

	PER DAY.	PER WEEK.
Accountants.....	\$2 00 to \$3 50	\$12 00 to \$20 00
Agricultural implements.....	2 00 to 2 50	12 00 to 15 00
Artificial teeth.....	1 75 to 3 00	10 00 to 18 00
Bakers—bread and cake.....	2 00 to 3 50	12 00 to 21 00
Basket makers.....	1 25 to 2 00	7 00 to 12 00
Brick makers, (boys and men).....	75 to 3 50	5 00 to 21 00
Brick layers—front.....	3 50 to 4 00	21 00 to 24 00
“ “ back.....	2 00 to 3 00	12 00 to 18 00
Boiler makers.....	2 00 to 2 50	12 00 to 15 00
Book binders.....	2 50 to 3 00	15 00 to 18 00
Box makers.....	2 00 to 3 00	12 00 to 15 00
Boot makers, by piece; cutlers.....	3 00 to 3 50	18 00 to 21 00
“ crimpers and finishers.....	2 50 to 3 50	15 00 to 21 00
Brewers, beer and ale.....	1 50 to 3 50	9 00 to 21 00
Blacking.....	1 50 to 2 50	9 00 to 15 00
Blacksmiths and wagon makers.....	2 00 to 3 00	12 00 to 18 00
“ “ helpers.....	1 50 to 2 00	9 00 to 12 00
Bolts and nuts.....	1 00 to 2 00	6 00 to 12 00
Boots and shoes—ladies and children.....	2 00 to 3 00	12 00 to 18 00
Brush makers.....	1 25 to 3 00	7 00 to 18 00
Button makers.....	1 25 to 2 50	7 00 to 15 00
Cabinet ware and furniture.....	1 50 to 4 00	9 00 to 24 00
Candles and soap.....	1 50 to 2 50	9 00 to 15 00
Car builders.....	2 00 to 3 00	12 00 to 18 00
Carpenters and builders.....	2 00 to 3 00	12 00 to 18 00
“ assistants.....	1 50 to 2 00	9 00 to 12 00
“ ship and navy.....	2 50 to 3 00	15 00 to 18 00
Carriage builders and trimmers.....	2 00 to 3 50	12 00 to 21 00
Carvers—wood.....	2 00 to 3 50	12 00 to 21 00
Chemical works.....	1 75 to 3 50	10 00 to 21 00
Clothing cutters.....	3 00 to 4 00	18 00 to 24 00
Clothing, fitters and sewers.....	2 00 to 3 50	12 00 to 21 00
Confectioners.....	1 50 to 2 50	9 00 to 15 00
Coopers.....	2 00 to 3 00	12 00 to 18 00
Cotton mills, spinners, weavers, &c.....	1 75 to 3 50	10 00 to 21 00
Curriers and dressers.....	2 00 to 3 00	12 00 to 18 00
Cordage works.....	1 25 to 3 00	7 00 to 18 00
Cotton mills, (skilled).....	2 50 to 4 00	15 00 to 24 00
“ “ younger or less skilled.....	1 75 to 2 25	10 00 to 14 00
Curriers of skins.....	2 00 to 3 00	12 00 to 18 00
Cutters, clothing or boots and shoes.....	3 00 to 4 00	18 00 to 24 00
Cutlers, or cutlery manufacturers.....	2 00 to 3 00	12 00 to 18 00
Dental workmen, on teeth or instruments.....	2 00 to 3 50	12 00 to 21 00
Drivers of engines, &c.....	2 25 to 4 00	13 00 to 24 00
Drivers, ordinary.....	1 50 to 2 25	9 00 to 13 00
Dyers.....	2 00 to 4 00	12 00 to 24 00
Engineers, proper in factories.....	3 00 to 4 00	18 00 to 24 00
Engravers, wood, steel and other.....	2 50 to 4 00	15 00 to 24 00
Firemen.....	1 50 to 2 50	9 00 to 15 00
Foundry men, moulders.....	2 50 to 4 00	15 00 to 24 00
“ “ laborers.....	1 50 to 2 50	9 00 to 15 00
Gas and steam fixtures.....	2 50 to 3 50	15 00 to 21 00
Glass blowers.....	3 00 to 4 00	18 00 to 25 00
Glass makers, other.....	1 50 to 2 50	9 00 to 15 00
Glass cutters.....	2 50 to 3 00	15 00 to 18 00
Glue makers, (skilled).....	2 50 to 3 50	15 00 to 21 00
Glue factory, workmen, other.....	1 50 to 2 25	9 00 to 14 00
Gold beaters.....	2 25 to 3 50	14 00 to 21 00
Goldsmiths.....	3 00 to 4 00	18 00 to 24 00
Granite cutters.....	2 50 to 3 00	15 00 to 18 00
Grinders and polishers.....	1 50 to 2 50	9 00 to 15 00
Hair cloth and hair workers.....	2 00 to 3 00	12 00 to 18 00
Harness makers.....	2 50 to 3 50	15 00 to 21 00
Hat makers, (felt and silk).....	2 50 to 4 50	15 00 to 26 00
Horse shoers.....	2 00 to 3 00	12 00 to 18 00

WAGES IN PHILADELPHIA—CONTINUED.

	PER DAY.	PER WEEK.
Hosiery mill works.....	2 25 to 3 50	14 00 to 21 00
Iron work, puddlers.....	4 00 to 4 50	24 00 to 27 00
“ helpers.....	2 00 to 2 25	12 00 to 14 00
Iron rollers.....	3 00 to 4 00	18 00 to 24 00
“ helpers.....	2 00 to 2 50	12 00 to 15 00
“ nailers.....	2 50 to 3 00	15 00 to 18 00
“ boiler makers.....	2 50 to 3 50	15 00 to 21 00
“ moulders, foundery.....	2 50 to 4 00	15 00 to 24 00
“ foundery laborers.....	1 50 to 2 25	9 00 to 14 00
Ivory and bone turners.....	2 00 to 3 00	12 00 to 15 00
Jewelers.....	2 50 to 4 00	15 00 to 24 00
Jewelers' assistants.....	1 50 to 2 25	9 00 to 14 00
Laborers, general.....	1 50 to 2 50	9 00 to 15 00
Lathers.....	2 00 to 2 50	12 00 to 15 00
Leather dressers.....	3 50 to 5 00	20 00 to 30 00
Locksmiths.....	2 25 to 3 25	13 00 to 20 00
Loom bosses.....	3 00 to 4 00	18 00 to 24 00
Lead works.....	2 00 to 3 50	12 00 to 21 00
Machinists, general.....	3 00 to 3 50	18 00 to 21 00
Marble cutters.....	2 00 to 3 50	12 00 to 21 00
Marble polishers.....	2 00 to 3 50	12 00 to 21 00
Masons, stone.....	3 00 to 3 50	18 00 to 21 00
Moulders, brick, (piece).....	3 50 to 4 00	21 00 to 24 00
Morocco dressers and finishers.....	3 50 to 6 00	21 00 to 36 00
Morocco factories, assistants.....	2 50 to 3 00	15 00 to 18 00
Music engravers.....	3 00 to 4 00	18 00 to 24 00
Oil-cloth makers.....	2 00 to 4 00	12 00 to 24 00
Oil grinders and pressers.....	2 50 to 4 00	15 00 to 24 00
Oil refiners.....	2 25 to 3 50	14 00 to 20 00
Painters, house, &c.....	2 25 to 4 50	14 00 to 27 00
Painters, assistants.....	1 50 to 2 50	9 00 to 15 00
Paint makers.....	2 00 to 3 00	12 00 to 18 00
Paper mills.....	1 50 to 3 50	9 00 to 21 00
Paper hangers.....	2 00 to 3 50	12 00 to 21 00
Piano makers.....	3 00 to 4 00	18 00 to 24 00
Planing mills.....	2 00 to 3 00	12 00 to 18 00
Plasterers.....	2 50 to 3 50	15 00 to 21 00
Plumbers.....	3 00 to 3 50	18 00 to 22 00
Printers, piece.....	3 00 to 5 00	18 00 to 30 00
“ press and assistant.....	2 50 to 4 00	15 00 to 24 00
Roofers, piece.....	3 00 to 3 50	18 00 to 21 00
“ assistant.....	2 00 to 2 50	12 00 to 15 00
Rope walks.....	2 25 to 4 00	14 00 to 24 00
Saddlers.....	2 50 to 3 00	15 00 to 18 00
Sash and door makers.....	2 50 to 3 50	15 00 to 21 00
Shipsmiths.....	2 50 to 3 00	15 00 to 18 00
Stair builders.....	3 00 to	18 00 to
Shoemakers, piece.....	3 00 to 4 50	18 00 to 27 00
“ assistant.....	2 00 to 2 50	12 00 to 15 00
Silversmiths.....	3 00 to 4 50	18 00 to 27 00
Silver platers.....	2 00 to 3 00	12 00 to 18 00
Soap makers.....	2 00 to 3 00	12 00 to 16 00
Spike makers.....	2 50 to 3 00	15 00 to 18 00
Stone cutters.....	2 50 to 3 50	15 00 to 21 00
Upholsterers.....	2 00 to 3 50	12 00 to 24 00
Weavers, (piece).....	2 50 to 5 00	15 00 to 30 00
Wool sorters.....	3 00 to 3 50	18 00 to 20 00

WAGES OF FEMALE LABOR IN PHILADELPHIA, 1870, 1871.

	PER DAY.	PER WEEK.
Accountants.....	\$1 75 to \$2 75	\$10 00 to \$16 50
Album fitters.....	1 50 to 2 00	9 00 to 12 00
Artists colorers.....	1 75 to 2 50	10 50 to 15 00
Artificial flower makers.....	1 00 to 3 00	6 00 to 18 00
Artificial teeth makers.....	1 50 to 2 00	9 00 to 12 00
Bakers, cakes, etc.....	1 50 to 2 00	9 00 to 12 00
Bedding and upholstering.....	2 00 to 2 50	12 00 to 15 00
Blacking packers.....	1 00 to 1 50	6 00 to 9 00
Blank book makers.....	1 25 to 1 50	7 50 to 9 00
Book binders.....	1 25 to 1 50	7 50 to 9 00
Bonnet frame makers.....	1 00 to 1 75	6 00 to 10 50
Bonnet finishers.....	2 00 to 2 50	12 00 to 15 00
Boots and shoes, ladies and children.....	1 00 to 2 50	6 00 to 15 00
Boxes, of paper.....	50 to 2 00	3 00 to 12 00
Braid weavers.....	1 00 to 2 00	6 00 to 12 00
Brush makers.....	1 00 to 2 00	6 00 to 12 00
Button makers.....	75 to 2 00	4 50 to 12 00
Canned fruits.....	75 to 2 00	4 50 to 12 00
Cap makers.....	75 to 1 75	5 00 to 10 00
Card packers.....	1 00 to 1 75	6 00 to 10 00
Carpet spoolers and winders.....	1 50 to 2 50	9 00 to 15 00
Chemical works.....	1 00 to 2 00	6 00 to 12 00
Clothing makers, (piece work chiefly).....	1 00 to 1 50	6 00 to 9 00
Collars and shirts.....	1 00 to 2 00	6 00 to 12 00
Confectioners, (packing).....	60 to 2 00	3 50 to 12 00
Corset and shirt makers.....	1 00 to 2 00	6 00 to 12 00
Cotton goods—weaver's.....	1 50 to 2 30	9 00 to 14 00
Do.....spoolers, etc.....	75 to 2 00	4 50 to 12 00
Do.....print works.....	1 00 to 2 50	6 00 to 15 00
Drugs and medicines, packers.....	1 00 to 2 00	6 00 to 12 00
Engravers and printers.....	1 00 to 2 00	6 00 to 12 00
Envelope makers.....	75 to 1 50	4 50 to 9 00
Furriers.....	1 00 to 2 50	6 00 to 15 00
Gold leaf packers.....	1 00 to 2 00	6 00 to 12 00
Gold and silver coinage.....	1 50 to 2 00	9 00 to 12 00
Hair cloth weavers.....	1 50 to 2 00	9 00 to 12 00
Hair workers, (human).....	1 00 to 2 00	6 00 to 12 00
Hosiery, cotton.....	50 to 2 00	3 00 to 12 00
Hosiery, woolen.....	75 to 2 50	4 50 to 15 00
Map colorers.....	75 to 2 00	4 00 to 12 00
Milliners and straw goods.....	1 00 to 2 50	6 00 to 15 00
Morocco leather.....	1 25 to 1 50	7 00 to 9 00
Neckties.....	1 00 to 1 75	6 00 to 10 00
Paper mills.....	1 00 to 1 75	6 00 to 10 00
Paper boxes and bags.....	50 to 2 00	3 00 to 12 00
Perfumes and cosmetics.....	1 00 to 2 00	6 00 to 12 00
Printers—job and other.....	1 00 to 2 00	6 00 to 12 00
Seed packers.....	50 to 1 75	3 00 to 10 00
Segar makers, (by piece).....	1 00 to 1 75	6 00 to 10 00
Shawl weavers and makers.....	1 25 to 2 25	7 00 to 14 00
Shirt makers.....	1 00 to 2 00	6 00 to 12 00
Shoe fitters.....	1 25 to 2 00	7 00 to 12 00
Silk ribbons, fringes, etc.....	75 to 2 50	4 50 to 15 00
Silk and worsted dress goods.....	1 00 to 2 50	6 00 to 15 00
Silver and plated ware.....	1 00 to 2 00	6 00 to 12 00
Soap packers.....	75 to 1 50	4 50 to 9 00
Umbrellas and parasols.....	75 to 2 25	4 50 to 14 00
Upholsterers' goods.....	1 00 to 2 00	6 00 to 12 00
Webbing and tape.....	1 00 to 2 25	6 00 to 14 00
Window and lamp shades.....	1 25 to 2 00	7 00 to 12 00
Woolen manufacturers.....	1 00 to 2 50	6 00 to 15 00
Worsted manufacturers.....	1 25 to 2 50	7 00 to 15 00

DISCUSSION.

J. G. Rosengarten, Secretary of the association, in introducing the lecturer of the evening, said :

LADIES AND GENTLEMEN :—The paper for this evening will be the concluding one for the season ; it is to be read by Mr. Blodgett, the statistician of Philadelphia, the man who has devoted more time, zeal and labor to the examination and reformation of our statistics, and in the production of proper results adducible from them than any one else ; he has worked with particular reference to the national census ; a part of his labors will be included in his remarks to-night.

There is one particular matter for which we invited Mr. Blodgett's help, and which I took the liberty of announcing in advance of his paper—that is, the programme of statistical observation and reports with a view to the census as suggested by labors of a similar kind in Europe. There was in France, at the time of the great Exposition, under the charge of Le Play, a series of observations upon wages and labor, and it was thought right that an effort should be made here, with the view of reaching something like certainty ; for the statistics of labor and wages in the census are almost entirely deficient.

I hope in time, Mr. Blodgett will find leisure to enforce upon both the National, State and local governments the necessity of continuous attention to the statistics of labor.

The paper of Mr. Blodgett will be printed in full, as have been the other papers of the association, in the forth-coming numbers of the *PENN MONTHLY*.

We invite, at the close of the paper, discussion on the several points suggested by those who are present.

This association is now about to take its annual summer rest, but I look forward to the labor of next winter with a great deal of interest. This kind of labor cannot be considered as mere abstraction, certainly, but as a matter of public importance, though not affecting, immediately or directly, the private interest of individuals. To keep up such an organization requires the labor of many persons, and there are incidental expenses attached to it which require contributions, in money if not in kind, from the members. We have so far gone forward in our work with a comparatively small number of members ; and upon them has rested a good deal of the labor and burden. In order to expedite that business more successfully, and bring to it perfection, it is very desirable that the number of members should be very largely increased. If during the summer months we succeed in doing this, it is our hope to make this or some other suitable hall a place of permanent meeting. The Board of Trade has taken this hall, and will fit it up to suit their purposes, and we hope to be able to secure part of the hall

for our own use permanently, and thus have a place for the meeting of our committees, and for the informal discussion of such matters as may be brought up in the association. Apart from the public teachings there has already been a good deal done by the association to bring the subjects discussed at its meetings to the notice of prominent men; if we have a sufficient number of members and sufficient support from the public who are not members, we shall be able to lead public opinion more than has hitherto been done in the matter of preliminary inquiries in the field of legislation. The other branches of the association have had a great deal of success elsewhere. We would like to have such further addition to our membership as will enable us to carry out the plan of the Philadelphia Social Science association. I will invite your attention now to Mr. Lorin Blodgett's paper.

At the conclusion of the paper Mr. Blodgett said:

I have been very deeply interested in many of the results of this census, and have here given you the leading points as they have presented themselves to me; but I am aware that others may be interested in other features of the case, and that there are important points I have not touched upon. If so, I would be glad to respond to any inquiries, and to hear any suggestions that may occur to you. I will here say that the general tabular statement, showing the numbers employed in each industry, and the production of each class of articles manufactured, has been received with great interest by people of other States, as well as by our own citizens. It will be issued in separate form, complete for every distinguishable manufacture, and constituting an extended tabular statement, covering many pages; the several classes of results being alphabetically arranged. I shall append to this paper a statement of the wages paid daily and weekly in the leading industries, giving those to females separately. I have been astonished to find so great a number of industries giving employment to females. Every part of the tabular statement shows a very unusual development of that class of persons employed.

Mr. Thomas H. Speakman said: Mr. Chairman: I have been much interested in what has been said as to the industries of the city, and much gratified with the attention and research which have been applied to the subject. It is interesting and instructive, and if I had any criticism to make upon it, it would be something like this—that the discourse we have heard has a defect found in almost all works of political economy. It comes too near to assuming that the chief object, or almost the only object of a community is to be rich, and so to be prosperous. And this in the sense that the chief virtue is industry; industry in accumulating dollars. I think this view overdone, generally speaking, and I was therefore interested most in what was said in reference to the tendency of the employers

and employed to approach a level—the growing and improving condition of the laboring class. What was said on that point interested me, as I believe it does not generally receive the attention it should. Too much is thought of mere accumulation of wealth, and not enough of the question whether the community lives wisely and sensibly.

Now I believe that a man was not made to live all his days a mere beast of burden, and the community in which a man must labor ten hours every day of his life, almost in order to live, evinces that there is something wrong. Not only does the laborer have to work in this way all his life, but many employers work a great deal more than that. They are more slaves, so to speak, than the persons employed; because these can finish their labor in ten hours, while the employer, even if a great capitalist, perhaps works sixteen hours or more. Viewed rightly, he is the slave. Some proprietors retire at a reasonable time and give way to others; but for the most part they continue to work merely to accumulate wealth. I think this an error, and that a wrong sentiment prevails on that subject. More time should be given to intellectual and moral culture. Socially, man ought not to be looked upon as a mere machine, a mere drudge. We should not live merely to accumulate; and the attention of the community ought to be directed to this point by persons who are competent to do it, as the gentleman who has read the paper to-night.

Indeed I think the attention of the Government might be turned to this subject. Where there is much wealth in the few there is little in the many. There is too much labor employed and money expended in articles of mere luxury. I should like to hear others on this point, and will only venture one or two suggestions as to a remedy. Instead of recognizing merit in the accumulation of wealth alone, and in mere worldly prosperity, there should be more moral and intellectual culture required in the community. Measures should be taken to promote equality between employers and employed, and to bring about a state in which all may live easier, and without spending so much time and labor in controversies.

Another thought is that suggested by Wendell Phillips, that there should be legislation tending, as he expressed it, “to make it expensive to be rich.” I believe the rate of taxation should be increased in proportion, so that a man with a house worth only a thousand dollars would be almost exempt. Let the taxes be paid chiefly by the wealthy. This would bring about a state of society in which there would be some merit accorded to intellect and moral culture more than now; a state in which the great question would be whether the community lives sensibly and wisely, rather than whether it accumulates a great many dollars in each year.

Mr. John D. Watson said : There is no means by which so great a change can be brought about as to bring employer and employed on the same social level. I should be glad to find it, if there is, and would do anything reasonable to aid it. This subject has attracted the attention of thinkers and speakers all over the civilized world, and it relates to many other pursuits than that of manufacturing ; to everything which belongs to advanced civilization. There is no mode of escape from taxation. Taxes may be put on the capitalist as heavy as you please, and he will simply transfer them to his customer. What is his capital ? It is in the form of machinery, of goods, or banking houses, or any other source of profit. Tax these and he puts the tax on his products or his customers, and the poor man not only pays it, but pays more than the government originally charges.

The reason why we all labor is because it is the common lot of man ; none but mere idlers fail to labor in some way, and the man who owns a factory labors harder than any of his men. It is misrepresentation to hold these proprietors up as people who grind the poor to the dust. They give employment when it otherwise would not be given ; their capital is at work in the money without which the factory could not be run, and they are the very basis upon which the whole industry rests.

It is stated that the wages of such labor in this city amount to \$62,000,000. Where does this go ? It goes into consumption ; perhaps into bank, and again returns to trade and industry. The whole sum of \$62,000,000 aids business directly as it is paid out. Even the \$5,000,000 on deposit in our savings banks is loaned out to aid business. In my judgment it is no evil to accumulate wealth, for wealth is the basis of civilization. The principle of competition is at the foundation of modern society. We compete in everything because we want the benefits of this wise and wholesome principle.

I was struck by the remark that the steam-power employed in our manufacturing industry was 50,000 horse-power. One horse-power equals the labor-power of ten able-bodied men, so that we have in this city alone, machinery equal to the hand-labor of 500,000 men. While employing but 140,000 persons in fact, its work accomplished is that of 500,000 more men. This is wealth—embodied wealth in its most advanced form ; and in these statistics, as I saw them in the speaker's office before coming here, I found the reason why we number more than 300,000 people in Philadelphia. Human labor is economized ; the ingenuity of men has devised labor-saving machinery by which vast economies are effected, and none need labor sixteen hours a day, leaving him no time to educate his mind. In my own business the Bullock press does everything by power, saving the labor of sixteen men in a single press-room. So it is in all forms of mechanical in-

dustry. It is not so many men thrown out of employment; it is simply transferring them to the mines to be worked; the cities to be built; the millions of acres to be tilled; the lines of commercial traffic to be conducted. In a country of 3,000,000 square miles, and with capacity for 300,000,000 people, we simply require more inhabitants than can possibly be added in our own life-time.

Another point worth attention, is the minor industries of the city, these are of great interest; Leplay, in his work on the Organization of the Industry of France, gives in detail the statistics of industry in Paris, and I have been forcibly impressed by his statement, that the ingenious and elegant fabrics that distinguish that city, chiefly come from shops in which but two or three persons are employed. In our own city there are many places of this kind; and our skill is but little inferior to theirs.

I trust we shall never have to regret the mere piling up of wealth at the sacrifice of culture. For what is culture? Is it the improvement of the mind by reading alone, or by college and school education? On the contrary, a large part of the culture we get is unconscious. It is got by everything that educates our tastes, even in our streets. It is got by contact with society; it must be gathered up wherever we may find it. An artist from France found his skill failing him after arriving in New York, because what he saw so often offended his taste, instead of supplying it with models.

Mr. Shoemaker said: That he trusted to see a time come when it would be as profitable to be a workman as to be a capitalist; not profitable in the money sense alone, but in the comforts and advantages that make life happy. He deprecated the fierce competition in business now going on, and regretted the intimation of the speaker that the business of many proprietors was conducted in a manner not proper to explain. He believed a better state of society possible in the future.

Mr. Blodgett explained that no intimation had been intended that proprietors had anything wrong in their management to be concealed; he had only referred to their right to keep their own business from exposure. No officer could have a right to communicate facts relating to individual establishments.

Mr. Shoemaker, resuming, said that an important point of inquiry would be to learn what share of the wages paid to labor was expended in vices and fictitious wants; if one-fifth was so expended, it was clear that eight hours instead of ten would suffice for a day's labor, or one-fifth of a man's years might be devoted to rest in his old age.

An inquiry being made as to the cost of labor generally in manufactures, Mr. Blodgett stated that it ranged from 20 to 30 per cent. of the value of the finished products; work by hand costing more for labor, and by steam
ast. Also, as to the expenditures of the laboring classes,

it is only just to say that very little goes to vice or waste. In foreign countries a much larger proportion goes to vicious indulgence than here, although the wages are much less. Our people in industrial employment will challenge comparison with any in the world for economy and the proper use of the wages they receive. They do not spend a hundredth part of their wages in vice; and as to tasteful clothing and care in personal appearance, although a good deal is spent that way, it is no injury to them, in most cases. It improves their position in every way, and promotes self-respect as well as helps them to remunerative employment. Many of the present proprietors have advanced themselves from the grade of laborers, and there are no pauperized masses of either sex falling into distress at frequent intervals.

In answer to an inquiry whether the building interest had been included in the account, Mr. Blodgett stated that a large share had been; an amount believed to be about half the actual value of the buildings erected in 1870, yet amounting to \$17,881,413 in value.

Mr. Rosengarten moved the usual resolution of thanks to Mr. Blodgett, with a request of a copy of the paper, and a brief of the discussion for publication.

Adjourned.

RETURNS OF LABOR BLANKS.

The blanks that were found in the office, prepared by the former commissioner, were very elaborate in their preparation and evidently contemplated a much closer inquisition than we have attempted to make. The labor blank contains twenty-eight questions. As they are somewhat voluminous and hardly applicable to the work we have proposed for this report, in the present condition of legislation with reference to the Bureau, we do not regard it as desirable to cumber the report with details of them at this time. We sent out a considerable number—between two and three hundred, but for the reasons explained in our introductory remarks we only received fourteen returns, and these by no means as full and satisfactory as we could wish. We have every reason to believe, however, that circumstances having attracted more attention to the Bureau, and given some confidence in the rectitude of its purpose that the work in this direction will be much more satisfactory the coming year.

We propose to give the substance of these returns as they bear upon the different subjects of which they treat:

EARNINGS.

No. 1. Anthracite coal miner. My earnings for a few month's of the year will be about \$70 per month; some months as low as \$40; I may put the average at about \$55; estimate nine months' work, \$495.

No. 2. Anthracite coal miner, occasionally teacher and clerk. Earnings for year preceding July 1, 1873, \$585; average daily wages, \$2 16 $\frac{2}{3}$. Total earnings in seven years, \$3,830.

No. 3. Anthracite miner. My earnings this year amount to about \$425.

No. 4. Anthracite miner. My earnings as a miner are about \$400 for the past year prior to July 1, 1873; earn \$100 per year as secretary of the Miners' Union.

No. 5. Bituminous coal miner. Earnings last year, \$875.

No. 6. Bituminous coal miner. Earnings last year, \$622; \$50 of this was extra work outside of coal mining.

No. 7. Bituminous coal miner. Earned about \$440; have two daughters, one 13, the other 14 years of age, living out at service, one at \$1 per week, the other at \$2 50 per week; they support themselves.

No. 8. Bituminous coal miner. Earnings last year, \$568.

No. 9. Bituminous coal miner. Earnings last year, \$400.

No. 10. Bituminous coal miner. Earnings last year, can't tell.

No. 11. Bituminous coal miner. Earnings last year, kept no account.

No. 12. Anthracite coal miner. Earnings last year, \$348.

No. 13. Bituminous coal miner. Earnings last year, no statement.

No. 14. Bituminous coal miner. Earnings last year, can't tell.

No. 15. Bituminous coal miner. Earnings last year, self and boy, \$1,000.

The average of these returns will be found to be \$513 16.

WAGES, DAILY AND MONTHLY, AS RETURNED ON BLANKS.

No. 1. My highest wages for a few months will be \$70 per month. Some months as low as \$40. I should average about \$55.

No. 2. Average daily wages 2 16 $\frac{2}{3}$.

No. 3. Highest monthly earning, \$87; lowest, \$15.

No. 4. About an average per day of \$2 25.

No. 5. Highest day's wages, \$5 00; lowest, \$1 00; average, about \$2 50.

No. 6. Highest day's wages, 3 50; lowest, 2 00; average, about \$2 50.

No. 7. Highest day's wages, 4 00; lowest, 2 00; average, not given.

No. 8. Highest day's wages, 4 00; lowest, 1 00; average, about \$2 50.

No. 9. Highest day's wages, 5 00; lowest, 1 00; average, not given.

No. 10. None of these questions answered, except as "can't tell."

No. 11. None of these questions answered, except as "can't tell."

No. 12. This man gives statement as follows:

RETURNS OF LABOR BLANKS.

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Earnings February.....	\$29 00
Do.... March	34 00
Do.... April.....	00 00
Do.... May.....	00 00
Do.... June.....	10 00
Do.... July	70 00
Do.... August.....	68 00
Do.... September.....	57 00
Do.... October	70 00
Do.... November.....	45 00
Do.... December.....	28 00
Extra work other than mining.....	50 00

This is, for the months named, in 1872..... 461 00

This man is known as a very respectable and industrious anthracite miner, temperate and provident in his habits, and his statement is given in this form because of that knowledge, for the purpose of illustrating the vicissitudes to which his occupation is subject. "I earn, cutting coal, from \$1 to \$3 per day."

The amount given under head of earnings, is for the twelve months prior to July 1, 1873.

No. 13. The highest day's work I have made is \$4 00; lowest, 75 cents. My average will be about \$50 per month.

No. 14. When at work I make from \$2 00 to \$3 00 per day.

No. 15. Myself and boy, lowest day's wages, \$1 25; highest, \$5 00; would put average about \$3 50.

COST OF LIVING.

On this subject of the cost of living, it has proved more difficult to get reliable and tangible information than on any other to which the Bureau has directed its attention. The instances are so extremely rare in which the workman, or indeed the employee of any class, so systematizes his daily transactions as to keep a record of his expenses, that with most persons answers to such questions seem to be a real impossibility. This, we fear, is more frequently caused among workmen, especially of the least skilled and poorest paid, by a quite natural and not altogether blameable pride, that makes them desirous to appear before others in the best possible light, and ashamed to give details that expose their extreme poverty.

On more than one occasion, in our excursions in search of information during the summer, when we have been pressing the necessity for details on this point, we have been answered in this wise: "I cannot give you

answers to these questions. Were I to begin to explain to you how my family live, and what upon, you would hardly credit me with telling the truth, and I would be covered with shame and mortification."

A few of those who have made returns have attempted to give detailed statements on the subject, but the majority have declined. We give the answers as we have received them, thus :

No. 1. I cannot tell, as I pay all cash payments and keep no accounts.

No. 2. Groceries and provisions, \$360 ; rent, \$50 ; fuel and light, \$18 ; clothing, \$115 ; furniture, \$20 ; sickness, \$65 ; education, including periodicals, \$17 ; recreation, \$1 75 ; charity and religion, \$10 ; sundries, \$20 25. Total, \$677.

No. 3. Groceries and provisions, \$264 ; rent, \$10 ; repairing of house, \$15 ; fuel and light, \$24 ; clothing, \$50 ; furniture, \$20 ; sickness, \$25 ; education, &c., \$4 ; recreation, \$10 ; charity and religion, \$10 ; sundries, \$8. Total, \$440.

The rent in this blank is a ground rent, the party owning the house.

No. 4. All my wages are expended in the costs of necessaries for myself and family.

No. 5. No answer given to these questions.

No. 6. Groceries and provisions, do not know ; rent, \$90 ; fuel and light, \$50 ; clothing, \$125 ; furniture, \$135 ; sickness, \$35 ; education and reading, \$15 ; recreation, 00 ; charity and religion, \$10 ; sundries, 00. Total, \$460.

The items not filled up, I cannot tell exactly ; but all I make—I never have any money.

No. 7. As I keep no diary, I cannot answer these questions fully. Sometimes I make a good pay and sometimes a bad. Whenever I make a good pay I will buy an article of clothing ; but in no case do I buy anything before I actually need it ; and I consider myself lucky if I can always get it when it is needed.

No. 8. Light, (miner's,) \$10 ; reading matter, \$10 ; charity and religion, \$10 ; clothing, \$150 ; recreation, \$50 ; sundries, \$300. Total, \$530.

This is an unmarried man, and he explains the items of sundries to be, board, \$260 00 ; mining tools and sharpening, \$20 ; carpenter's tools, \$20, having began to learn the trade ; had about \$50 on hand July last.

No. 9. Says nothing on the subject of expenses.

No. 10. Can't tell.

No. 11. Kept no account.

No. 12. Groceries and provisions, \$360 ; rent, \$60 ; fuel and light, \$5 ; clothing, \$90 ; furniture, \$10 ; sickness, \$10 ; education, &c., \$7 50 ; recreation, 50 cents ; charity and religion, \$20 ; sundries, \$1. Total, \$564.

No. 13. Groceries and provisions, \$300; rent, \$84; fuel and light, \$50; clothing, \$60; furniture, \$5; sickness, \$10; education, &c., \$15; recreation, \$10; charity and religion, \$15; sundries, \$51. Total, \$600.

No. 14. I cannot tell.

No. 15. Did not keep account.

The average of these returns of expenses is \$545 16. One of them is made by an unmarried man, and cannot be regarded as properly in place in the above average of family expenses. Exclusive of this, the average will be \$548 20.

It will be remembered that these returns are all from workmen most advanced in education and intelligence, (miners of bituminous and anthracite coal exclusively, no returns received from others,) whose manner of living is in all probability somewhat more expensive than that of the great mass whose yearly earnings would not be equal to such expenditure.

A conversation had with a wagon maker, an intelligent man, of some fifty years of age, developed some reflections that go more immediately to the root of this question of the actual condition of labor in the State, in particular regard to the comparison that condition bears to thirty years ago, than *folios of dry figures* quoted from the ratiocinations of the most noted theoretical writers. His reminiscences are the more valuable because they are reliable, and will be corroborated by large numbers of his cotemporaries, who perhaps have not thought of making the comparison. We give the substance of his recollections, as nearly as possible, in his own words.

"When I went to my apprenticeship, in 1838, the custom was, as was practiced in my case, to indenture apprentices by written agreements, attested sometimes in the courts, and sometimes by witnesses only; but always with a surrounding of solemnity of contract, calculated to impress the boy with a sense of the responsibility of the parents, and of the transfer of that responsibility to the master, and was strongly suggestive to him (the boy) of the dignity of his new relation. In these agreements the master undertook to exercise the parental supervision of the moral growth of the apprentice, which, before such indenture, belonged to the father. The fitness of the master, from his business and moral character to assume this guardianship, was vouched for by the witnesses to the contract; and his covenant to perform faithfully this part of the contract was as solemnly set fourth as that in which he bound himself to teach him the whole 'art and mystery' of the craft he pursued. The boy was also bound over his signature to accept this new guardian, and obey him with the same respect and sense of dutiful obligation as he would his father.

"The consequence was, that the youth felt the same sense of his master's control that he had felt of that of his parent. I remember distinctly that during the three years of my apprenticeship I never thought of absenting

myself from my master's house, even to attend evening religious worship, without his full knowledge and concurrence; and even on holidays, and election days, when he was accustomed to give me whole or half days to enjoy myself in, and 'see the fun;' the consciousness of the nearness of his authoritative supervision, and the frequency of his wholesome admonitions, restrained my youthful exuberance of spirits, and beyond a question saved me from the acquirement of habits and indulgence in excesses that are the curse of the present system. You are seeking information that will enable you to present the actual condition of the working classes, and it seems to me that the extremely vicious apprentice system upon which we have fallen, (or, rather I should say, system of non-apprenticeship,) is the prolific source of most of the evils complained of. A system by which the youth is thrown upon his own judgment and self-control, at the very age when he requires more than at any other the wholesome restraints of parental authority; by which in the shop in which he works he is dealt with exactly as if he were a journeyman, except that his pay is smaller; by which, so far as his master is concerned, he is absolutely his own master, spending his evenings where he pleases, or wherever the vicious influences of the concert saloon, beer shop and drinking bar, and the bachanalian club may tempt him to go, without any restraint of saving influence around him to deter him, and only to be plunged into a deeper depth of viciousness and vagrancy, when the vices he thus acquires impair his profitableness as an employee, and lead to his discharge with his trade unlearned. This I regard as one of the most mischievous of the many mischievous influences that have grown up with the growth of the unreasoning, concentrated, grasping spirit of competition and aggregation that distinguishes the history of trade in this country for the past thirty years.

"It is an efficient and ever active antagonist of our excellent school system, and does more probably to retard moral and intellectual progress among the masses—to intensify and strengthen the influence for evil of every debasing activity in the community, than any other one cause. It is not the result of any real necessity of the new order of productive activity, but the out-growth of that debasing greed for accumulation that causes the man of business to lose sight of every other consideration, forget his moral responsibility as a citizen, care nothing for the success of the lives, or purity of the souls of those thousands of workers whose hands under his direction mould the elements, that make the wealth of the nation.

"Another result of this unthinking eagerness for profit, is the comparatively worse condition of the mass of laborers now, than thirty years ago. That which was then a liberal income, would now be the most wretched poverty. Look at it. When I got my freedom suit, and was congratulated by my

master and his family upon being a man and a tradesman; I felt proud at being employed by him as a journeyman piece-worker at prices at which I would earn from 90 cents to \$1 25 per day. I paid him for my board, \$1 50 per week, that being the usual price, (this was in Chester county.)

"My freedom suit, made of the best broadcloth, with high silk hat, long calf-skin boots, four pairs woolen hose and three fine white shirts, (my master was kind and liberal and gave me the best,) cost \$40 00. I worked for him twenty months, in which time without parsimony, I saved \$225 00; with this money for capital, I married, commenced housekeeping, started myself as shop-master, and all without going in debt or feeling that I was especially poor.

"Now let us see how we used to live at these prices. I was served from the butcher's wagon twice a week at the door with mutton, fore quarter, 4 cents; hind quarter, 5 cents; choice cuts, chops, &c., $5\frac{1}{2}$ to 6 cents per pound; veal about the same: beef, soup pieces, 3 to 4 cents per pound; the shins, $12\frac{1}{2}$ each; steaks, round and rump, 5 to 6 cents per pound; roasts, (very good,) 5 to 7 cents per pound; very best rib and chucks, 7 to 9 cents per pound; pork purchased at retail from the stores, 5 to 6 cents per pound; purchased by the carcass for home curing, \$3 75 to \$5 00 per hundred pounds; shoulders cured and smoked, 5 to 6 cents per pound; hams, from ordinary to finest, 7 to 9 cents per pound; rent, house and shop with half-acre of ground and stable for horse and cow, \$45 00 per year; good shirt-making and sheeting muslins from 7 to 9 cents per yard; potatoes from 25 to 30 cents per bushel, 50 cents being an extraordinary price; flour from the mill in sacks from \$3 50 to \$4 75 per barrel, \$5 00 being regarded as a splendid price. I do not wish to confuse by extending the list further, but would suggest that you compare that time with this. Let us try to make a list of the above articles at present prices.

"This is hard to do exactly, for I do not live now in Chester county, and do not know exactly the local prices, but the following will not be far wrong:

A fine suit of broadcloth or cassimere, (not slop work,).....	\$60 00
Silk hat, fair article	6 00
Calf skin boots, (hard to be got as good now at any price,).....	10 00
Four pairs woolen hose, (say)	3 00
Three fine white shirts.....	9 00
<hr/>	
Total cost of freedom suit.....	88 00
<hr/>	

"Mutton, $12\frac{1}{2}$ to 18 cents; veal, do. do.; beef 10 to 20 cents; pork, at retail in the stores, 10 to 15 cents; by the carcass, \$6 to \$8 per 100 lbs.; shoulders, cured and smoked, 12 to 15 cents per lb.; hams from 14 to 18

cents per lb. Rent, such place as above described, in country districts, \$80 to \$200 per year. Shirting and sheeting, 18 to 25 cents: potatoes, 75 cents to \$1 50 per bushel; flour, from \$9 to \$11 per barrel. The truth is, that while the average cost of living has increased nearly two and a half, the average wages have not increased quite two, and this increase is mostly in the higher grades. It is not needed that I should extend the comparison further to emphasize the lesson I seek to convey, which is this: There are at this time undoubtedly more than half the wage-working population of the State who work (I mean males, adult, skilled and otherwise) for an average of \$1 50 per day, and who, by reason of the many interruptions to trade will not make more than nine full months' work in the year. How can this immense horde avail themselves of the appliances for social, moral and intellectual improvement supplied by the enlightened spirit of philanthropy that is struggling to counteract the downward tendencies of the time? To my mind it seems impossible, and unless a change takes place in the general character and purpose of business activities and legislation alike, less of greed and more of conscience; less materialism and more humanitarianism; less eagerness for the power that money gives and more concern for the preservation of free institutions, I greatly fear that the man is born who will see the end alike of our prosperity and the republic."

It is no part of the purpose of the Bureau to discuss at length the ponderous question suggested by this gentleman. It is enough to say that he is no labor reform agitator, not even an over-active politician—but a quiet, unobtrusive, well-to-do, well-informed, and highly respected citizen. We have given his views at such length because they are a clear and concise statement of impressions and opinions that find their expression everywhere in more or less logical terms. This subject of the relative expense of living now and thirty years since, as compared with the relative rates of wages now and then, is pregnant with matter for serious reflection. Our friend, whom we have quoted, is right beyond a question in his assumption, which is naturally inferred from what he says, that the lower grades of labor are not so well paid now proportionately as thirty years ago. That great progress has been made in elevating the character and compensation of the best classes of skilled workmen is very true; but this is not to be credited to any improvement or merit in the system that has grown up during these years, but to the fact, that, in consequence of its vices, (non-apprenticeship being one of the chief among them,) highly skilled workmen are becoming rarer and rarer, and the consequent demand for them runs the price up beyond all proportion, while the great mass of workmen are depressed to make up the difference. It is this that causes the unpalatable showing in our tables, while at the same time, the very

liberal wages paid to the few, being the rates quoted as prevailing, furnish the flattering data upon which rose-colored exhibits are made, and the mistaken and delusive impression prevails that our working classes are exceptionally and conspicuously prosperous.

Mr. Walker, the Superintendent of the Census, in his note on the relations of wages to product, says: "In reference to certain of the common trades, it needs to be stated, in explanation, that the apparently inadequate amount of wages reported is due to the fact that a very large body of labor is included which is not represented in the wages column. Thus the statistics of carpentering show that, for a total production of \$132,901,432 (the value of materials being \$65,943,115,) the amount of wages paid was only \$29,169,588. The consideration above noted is sufficient to account for the seeming deficiency, inasmuch as the labor of proprietors of establishments in this line (certainly not less than 17,142, and probably rising to 20,000) was compensated, not out of the wages paid, but out of the profits of the business. In some branches of industry the number of 'hired hands' is even less than the number of artisans working in their own shops, and hence, receiving no wages, but living off the profits of manufacture."

Mr. Blodgett also, as will be seen by reference to his paper, estimates that a very considerable percentage should be added to the totals of wages in Philadelphia for somewhat similar reasons. It will be seen that the figures quoted by Mr. Walker would indicate, upon deducting the value of materials and total of wages from the total production, the sum of \$37,778,728 as profit, or income of proprietors. Now the total number of establishments in this industry, as returned in the tables from which these figures are taken, is 17,142. Mr. Walker says, "this number certainly, and probably rising to twenty thousand, are counted in the columns of hands employed," while they are not represented in the wages column. This would include every proprietor who has made return, *and probably nearly three thousand who have not.* We cannot, we confess, understand upon what data this theory can be based; but we give it, that its value, if it has any, may not be lost in reaching approximate results. It may be noted that the above amount, if accepted as the compensation of proprietors, will give to the head of each establishment an average income of \$2,204 45 for the census year, certainly not an extravagant sum for an average. Our conviction is strong that the tables we have given approximate very closely to the real amount of wages paid to the number of persons returned.

SELECTIONS FROM WORKMEN'S RETURNS.

In order that the opinions and impressions prevailing among the people interested in the subject of which we are treating may be known, and because we believe that those opinions and impressions will be more suggestive of the drift that thought is taking, and more authoritative than comment of ours could be, we give such statements beginning with the returns of our own workmen, as have come to hand and are of apparent interest.

No. 2 describes his house as a common frame building of four small rooms, no garden nor out-houses; surrounded by rocks and woods, two miles from work. Rent, \$4 per month, and requiring repairs about \$25 per year, (which I pay myself.) on account of leaking roof, broken windows and doors—no cellars. Owned by the Philadelphia and Reading land and coal company.

Hours of labor, ten hours per day; lost nine weeks last year because of a strike, sickness, &c.

I believe shorter hours would not lessen the amount of wages earned. A short and active day is productive of greater and better results than a long and wearying one. The shorter hours promote health, moral and physical; give time and courage to seek mental culture, and thus elevates the man.

With regard to Saving banks, this writer says: "I regard them as a perverted good, gathering the people's money into a useless and unproductive store-house. I have deposited at 5 per cent., and borrowed at 13 per cent. I believe the chief trouble to be, that in productive industry the whole, or nearly the whole profit is absorbed in the cost of money for carrying on the business. Thus, the banks, saving and other, pay interest for deposits, and have every motive for loaning at the highest rate that can possibly be obtained. This I do not suppose is done directly, but by arrangement with others. Very great falsehood is practiced, if it is not common with banks to charge from 8 per cent. to 10 per cent. discount. It has been openly asserted in debate in the Legislature, as an argument for the repeal of the usury laws, that they, in this respect, are utterly disregarded, and might as well be wiped from the statute books. The effect of this laxness in their enforcement, is to fix upon the community, as a custom, the payment by way of discount, or 'bonus,' of any rate from 10 per cent to 15 per cent. Now, no business can afford such a drain as this, and the result is, that the borrowing employer is driven to the attempt to make up the difference between that and what he should pay for such accommodation, by reducing the wages of his employees, and so, struggles along, impoverishing his workmen, in his frantic effort to free himself from the coils of a worse than anaconda; coils, that once they are wound, seldom

are known to loose, until employer and workmen are alike sunk—the one in bankruptcy, the other in destitution—and nothing is left of their united industry that has not found its way into the vaults of the imposing bank building, or the palace and money box of the broker. We workmen protest against this state of things. We regard the doctrine that money is merchandise, or can safely be permitted to be regarded or dealt in as such, as one of the most mischievous heresies of the age. A man may own one hundred thousand dollars in horses, and, if he attempts to hold them at exorbitant prices, they will 'eat their heads off,' and he be forced for self-preservation to sell them at what they are worth, or lose them entirely; but if his hundred thousand dollars is in money, which is the medium of exchange of the people, and that amount is so large a portion of the circulation as to affect the supply, he can, without hurting himself, make his producing neighbor his tributary, drive him into bankruptcy at will, and enrich himself by buying up his depreciated estate.

"This, we hold, is exactly what has been going on for years, and the reason why, with all our production, the slightest disturbance of the current of trade destroys all confidence, throws the whole community into panic, and no trade prospers but that which destroys all others—money-dealing."

Some indication of the source of such a habit of thought (if so it may be called) may be found in the writer's opinion of trade unions. On this subject he says: "I have have had four years' experience with 'trade unions,' as a member of the 'Miners' Union of Schuylkill County.' I regard it as an excellent institution. Its effect has been to create harmony and unity among the workmen. Their frequent meetings, debates, and regular order of business, developes rapidly the reasoning powers of the members; cultivates a degree of self-respect among them, that promotes order and intelligent regard for their own and the rights of others. Its beneficial features secure its membership against want when in misfortune, and imbue them with a hopefulness that only the sense of mutual helpfulness can give. Under its influence our people have grown out of the propensity to indulge in strikes, or resort to them for every trifling cause. The intelligent consideration of the questions that arise between ourselves and our employers, that has been the result of the organization, has led to fewer paltry complaints being made, and to a disposition to arbitrate graver ones. The vices of the old system with us, that may be said to have been almost entirely eradicated by the union, may be summed up thus:

1st. A lack of sympathy with each other, that often led to ruinous competitions, one man underbidding the other for his work, leading to passionate rivalries and bitter revenges. These would extend from individuals to classes of nationalities, one class always arrayed against another, and, through their mutual jealousies, going into conflicts and strikes with-

out just cause, making demands not founded in reason, and producing an idle and demoralized condition among workmen.

2d. Strikes during the years preceding our organization were often without sufficient cause, always demoralizing, and seldom of advantage to either employer or employed. Often trivial grievances on the one side and the other would result in strikes, differences that but for the bad blood existing, should and might have been settled by calm and friendly discussion between the parties. Except in few instances, the strikes that have occurred since our organization, have not been so much for advanced wages; as for the defence of some principle of the Union, involving in the issue its right to exist at all. The strike is held to be now the remedy to be used only as a last resort. That this exists as a necessity is to our minds beyond a question, and we believe it will continue to exist as long as the present relations of capital and labor exist—that is to say, until the wisdom of compensating labor in proportion to the real dignity of its position in the field of production, is realized and practised. As a means to lead the way to such changes in our social and financial relations, as the great development of our industries, and the increased and increasing proportion the wage-working population bear to the whole render necessary to our prosperity, and even to the stability of our political system; I regard Unions of workmen, similar in character and purpose to ours, as invaluable."

The general expression of all the returns on this subject are of the same tone and substantially to the same effect. We will now give their statements as to the character and rental cost of their houses.

No. 1 says: My house has three sleeping rooms, with three rooms a sitting room, kitchen and shanty, one cellar. There are a great many occupied basements in our neighborhood that are damp and unfit for dwellings.

No. 3 says: My house has four rooms, convenient to the road and about one quarter of a mile from work; I own the house, subject to \$10 per year ground rent; about \$15 per year expense for repairs. There are around us more than 50 unoccupied houses; about 100 occupied, the most of them unfit for habitation; all owned by the Philadelphia and Reading land and coal company.

No. 4 says: My house is a brick, with three rooms below stairs, on the ground floor, and three sleeping rooms; rent, \$9 50 per month; about one mile from work. There a great many basements used as tenements that are unfit for habitation on account of dampness and bad ventilation.

No. 5 says: "My house is a brick, with four rooms; the cellar standing with water so that it cannot be used; no accommodations to it at all; $1\frac{1}{2}$

miles from work; rent, \$6 per month. There are large numbers of tenanted houses here that are unfit for habitation."

No. 6 says: "One square frame, two rooms and kitchen, a small lot, good conveniences, over half a mile from mouth of pit, and an additional mile to walk under ground; rent, \$8 per month. There are some tenant houses in my neighborhood in very bad condition for habitation."

No. 7 says: "I live in a house containing two rooms, one up and one down; no cellar; we eat and sleep in the lower room, and my children occupy the upper to sleep in. I do not know what it cost to build it, but it could not have been much above \$300. It is not in a fit condition to live in, but the owner cannot get money to make it better, as he is a poor working man himself. I pay \$5 per month rent; I can see daylight through the places where the plaster is broken off."

No. 8 is a single man and boarder. He says: "I board with a private family; the house has four rooms, with pleasant surroundings though few conveniences; no wash-houses for miners are provided in this locality; the rent paid is \$10 per month; the character of tenements here is bad, some would make moderately decent cow stables, but are not fit for human beings."

No. 12. My dwelling is composed of three rooms; it is surrounded by vast dirt banks—the refuse of the mines, and is anything but pleasant when it rains; rent, \$5 per month.

No. 13 says: "My house has two apartments and a kitchen; the house is very much dilapidated; my rent is \$7 per month."

No. 14 says: "I own my house; it is still under some mortgage to a building association; assessed at \$400; it has eight rooms; is situated in Banksville, in a coal region; is easy of access by road and railroad; there are a great many very badly conditioned tenant houses; they are built in blocks, ten to twenty houses in the block, two 16 feet square rooms for a family; have no through air course for ventilation."

No. 15 says: "A three room house without conveniences; no water; house open and cold; three miles from work; my rent is \$48 per year."

Without cumbering these pages with repetitions, we may say that all these returns contain allusions to the following topics, and all the statements are to the same effect:

1st. Hours of labor. In the anthracite mines from eight to ten per day. In the bituminous mines from ten to thirteen, and sometimes even fourteen. Great complaint is made of the effect of long hours upon the moral as well as physical health. The hours of piece-workers are alluded to in these complaints; the workers at daily wages may be put almost if not quite universally at ten hours per day. The contract or piece-workers complain

that the prices have been so low that the men are compelled to work very long hours to make sufficient to meet their wants.

2d. Employment of children in the mines. In all the returns this is spoken of and deprecated. This grows out of the necessities of the men, the temptation to add to their earnings by taking their boys into the mines with them being too great to be resisted. There is a general demand among the people that education shall be made compulsory. One anthracite miner says, that in one operation in which he made careful investigation there were in 200 hands 5 per cent. children under ten years of age, and 15 per cent. between 10 and 15 years of age.

3. Care for the health and safety of miners and workmen. While there are fewer disasters now than previous to the passage of the ventilation act, yet nothing like satisfactory results have been attained, owing to its lax enforcement. The opinion is that measures should be adopted to secure more faithful observance of its provisions.

In the western part of the State a demand for similar protection of the law to health and life of miners, &c., is beginning to be heard, and undoubtedly is needed to secure that just care for the life and well-being of the citizen, that always characterizes a benevolent and Christian public policy.

We add to these statements of workmen of our own State the following extract from the report for 1871 of the Massachusetts Labor Bureau, it being the presentation of views of a ship-joiner. It is given here to show how closely the habits of thought of American workmen, however widely separated by distance or diverse in occupation, are running in the same channel.

A journeyman mechanic, working mainly in shipyards, gives his experience of strikes and trade conflicts as follows:

In the spring of 1853 I was engaged in a strike for the reduction of hours from ten to eight, as well as for a rise in wages. I went into the strike because there seemed no other way of relieving my trade of its burdens. We had expostulated with our employers in vain. Some who would otherwise have been large hearted enough to concede our claims were unable to do so on account of their relations to the merchants who gave them their work, and also to the illiberal masters who opposed all concessions. The strike was confined to the ship-joiners of Boston employed in repairs, some two hundred in all. The larger part of our work was done in company with two strongly organized trades, the caulkers and ship carpenters. By a series of struggles, extending over a number of years, they had succeeded in reducing their hours of labor from ten to eight, and in establishing a uniform rate of wages at \$3 a day. We had no organization; our hours of labor were ten, and our wages were \$1 75. Working on the same vessels with the journeyman carpenters, most of our work was closely connected and even interchangeable with theirs. When working directly upon

a job with the carpenters, we have the privilege of the eight-hour day, but the instant they finished their part of a job, even though we continued on the same ship and on the same piece of work upon which we had worked but eight hours the day before, they insisted that our day should be increased to ten hours. Some explanation of the disparity in wages between the joiners and the carpenters is found in the fact that the condition of the former was slightly better in the matter of regular and permanent employment; at least this was made a pretext for reducing our wages to the lowest point. The state of affairs thus described caused constant collisions of a character unfavorable to the general good. The strike lasted but a few weeks, and, so far as immediate results were concerned, was a failure. A slight advance of wages was secured, and the general condition of things a little improved. Our employers lost some of their best men, who became disgusted with the humiliating condition of the trade, and left it.

In 1854 the culmination of commercial prosperity, incident upon the discovery of gold, brought a demand for labor throughout the shipyards of the country, and the joiners of Boston renewed their request of the previous year. Both points in dispute were conceded, and this trade was placed upon the same level as the associated callings. The leading employers have had the justice and good sense to allow the understanding thus reached to remain undisturbed.

Reflecting workmen are convinced that strikes form an essential part of the great struggle in which labor is engaged. While progressing, their objectionable features come to light and are made the most of by employers and the press in their interest, and so a dominant public opinion adverse to them has been formed. These theories of non-resistance are wholly indefensible. Capital has its Bunker Hills, and victory may be the precursor of defeat. It is true that in our case the employers yielded voluntarily at last, but it is evident that they would not have done so except from the pressure of moral influences growing out of the strike. They cared little for the heated talk of impulsive men while in open revolt, but different feelings came into play when they saw the whole calling helpless in defeat. Prudential motives also enforced the claims of justice, bringing as they did forcibly to mind the losses and vexations incident to interruptions of business. Following these influences out into a wider sphere, we find that some employers became convinced that labor was justified in its demand for the eight hour day, the principal opponent of the strike having been heard to say that were it not for the proprieties of his situation as an employer, he would head an eight-hour petition his employees were signing. The influences of that strike have gone still further. The joiners are pre-eminent among the trades for their ability and character, and the truths

discussed and experience acquired at the time, have been projected into the present movement of labor with marked influence.

There are circumstances connected with the ship and house building trades which conspire to give those working at them a larger liberty in industrial relations than is enjoyed by their operative brethren in other employments, especially those working upon iron and leather. The labor of the open air is favorable to out-spoken freedom. The highest physical vigor is secured, and this is closely connected with mental energy. This accounts for what is a noticeable fact, that the pioneer work in the reduction of hours has been almost entirely done by ship carpenters, caulkers and house plasterers. In our trade, unless business is unusually brisk, there is an interval between the completion of one contract and the beginning of another, long enough to occasion the discharge of most of the hands. This tendency is still further operative in connection with the division of trades, the workman who devotes himself to a specialty usually remaining at his work but a short time in one place. Under these circumstances the relations of the workmen to their employers are neutral; they neither love nor hate them. Long terms of labor beget intense personal antipathy to employers, as may be seen in the mill operative and the common sailor. With us there is no motive for that non-committalism and subserviency that come into play in any calling where there is a prospect of obtaining a permanent situation through their exercise. Other modifying influences are the large number of employers, their contrariety of interest, and their wide local diffusion, rendering it impossible for them to combine their forces against labor in any practicable or permanent form. Depression and dullness in trade contribute to lower the morale of labor somewhat, but not to the extent of serious or permanent injury. Strikes in the building trades in Massachusetts seldom result in discharge, because the workman generally has temper and spirit enough to leave, unless he belongs to an organization strong enough for mutual protection.

Concerning the relation of the hours of labor to wages, and the abuses or injustice connected with the present wage system, he remarks as follows:

Twenty-six years ago I performed nearly thirteen hours of actual labor per day the year through, using lamps morning and evening while at work during the three winter months. The trade was that of machine sash, blind and door making, and the location a town near Boston. The experience of a single year resulted in a rooted conviction that such excessive labor was a grievous and unnecessary requirement, and so I changed to another calling which gave me the ten-hour day. Labor excessively protracted defeats its own end—the maximum of production—by the exhaustion and sickness engendered, and by the drunkenness, dissipation and idleness of which it is the efficient cause. As applied to farming even, it is

detrimental in making the employment repulsive, and driving the laborer from the farm to the city. The farm day limited to ten hours would bring with it compensations sufficient to more than make up for the temporary sacrifice.

The evils resulting from the excessive labor of factory men, women and children, especially the latter two classes, produce marked results of a detrimental nature, and yet the philanthropic and cultured in the community neglect their consideration, while organizing to prevent cruelty to animals. Our climatic exposures for the three summer months give to us a temperature corresponding to that of the cotton mill throughout the year. During this heated term the classes who profit by this ill-used interest of labor seek relaxation in every form. A proper public sentiment would long ago have prevented a continuance of the selfish usage which requires in the factory a working day of eleven hours and twenty minutes.

Excessive labor has also much to do with over-production and its disastrous reactions in those great staples toward which our industry sets. This is specially apparent in connection with the ship building interest. The increase of our national tonnage has not harmonized with the growth of other interests in the country. Statistics show that there was a steady increase from 1850 to 1856, a steady and rapid decrease from 1856 to 1860, followed by two years of slight increase, and one of marked decadence, the latter succeeded by two years of rapid increase, themselves succeeded by five years of diminution. The production of 583,000 tons in 1855, was followed in 1859 by a production of only 156,000 tons; and while 175,000 tons were built in 1862, 514,000 were built in 1864. The large tonnage employed in the foreign trade at the beginning of the war was the surplus production of the first five years of the preceding decade, and was driven there because the California, Australia and cotton freighting, for which it was built, did not call for such an enormous accession. A great stimulus had been given to ship building, and the market was over-stocked. Between 1856 and 1868 in the United Kingdom, there was a much more healthy and equitable adjustment of the conditions of production. The ruin which had really overtaken our shipping interest, before the war, was largely the result of excessive production, and was only rendered more complete by the ravages of the Alabama.

Causes operating for so long a period, and over such extensive areas, could hardly fail to manifest themselves in other directions of industrial effort. We find accordingly that the first action of the organized industry of the leading manufacture of the State, that of the boot and shoe makers, developed in this direction, and steps were taken by them, at the outset of their movement, to remedy the evils to which they were subjected by forced inaction for four months of the year.

Here is a fact in evidence on the broadest scale, that eight months of labor is ample to supply these products not only to the whole Commonwealth, but to answer the call of all who may purchase for an exterior market. I have the fullest confidence that the same state of things may with truth be affirmed of all the great industries of the country.

During the year of employment to which I have already alluded, the pay of first-class workmen was \$1 33 per day, and the number employed was twenty-six. As spring opened, there was every indication of prosperity, and large contracts were made by our employer. The more thrifty and intelligent workmen, on consultation, came to the conclusion that they had better work by the piece. While negotiations to that effect were going on; an unmarried young man from a distant State came along and engaged most of the work that was to be had by the piece at the employer's price, and, with a younger brother as an apprentice, entered the shop. The pair labored with the utmost diligence, extending the excessive hours already named (13) by commencing at dawn and working at noon and at night, to the utmost limits of endurance. The elder brother made \$1 75 per day throughout the season, besides what he profitted by his brother's labor. During the summer, still more work was jobbed out to other parties from abroad, under similar circumstances to those already named. The paltry advance in wages made by the party who took work by the job, in spite of marked ability and intense application, convinced me that the price asked by the regular men was not excessive and led me to an entire distrust of the usually received principles of political economy; yet this employer did no more than he was warranted in doing by the axiom, "buy in the cheapest market."

I am now well aware that this problem cannot be fully discussed, without reference to high moral principles. Wages, being determined by the supposed needs of the laborer, seldom bear any just relation to the sum that would be received in case of an equitable division of profits. The falsity of this statement would probably be argued upon the ground that the margin of profit is now very narrow. But even if this is admitted, it remains true that the profit margin remains narrow because so many new producers are to be supported, the number of idlers being enormously augmented by the debased condition of labor. There have been periods of marked commercial prosperity, but in those times labor has certainly not succeeded in getting its full share of the profits earned in connection with capital; while during the periods of depression, often long continued, wages surely go down, and the manufacturer points the demurring workman to the necessities of the situation as justifying scantiness of wages and forbidding any improvement. Often as justifying the truth would require a confession that these men ought not to be in business, living in an extravagant style upon the ill-paid

labor of others, but ought instead to labor themselves, and bring their expenses within such an income as they might acquire without injury to their fellow-men. To illustrate in another form: note has nowhere been made of the great burden that rests upon the community by the maintenance of an army of commercial drummers, the least estimate of whose numbers which I have seen amounting to 50,000, supported at an expense of \$6 per day, while traveling, in addition to their salaries. Dealer and customer ought to meet without the expense of intervening parties, especially in a country replete with postal, express, railroad and telegraphic facilities. In some way, more or less direct, laborers have to provide for all idlers, nor is it possible under the wage system that it should be otherwise; for, inasmuch as it is not pretended, even in theory, that there shall be a just division of labor and its profits, almost superhuman efforts are put forth to reach that point in the social plane where—in the shape of exemption from manual toil, freedom from its lowering associations, and the reception of honor and profit,—the chief good appears to lie.

Oftentimes resident workmen are married men, with local and family duties which take much time and strength, and hence they are in no condition to compete with those outsiders who underbid them, because free from similar burdens. Their slender means may be strained to the utmost to sustain the institutions of religion, while in the direction of the family, the rearing of children, etc., motives easily understood will constantly press upon them.

Let me give an instance from my own experience, showing some influences which are injuriously operative in their effects upon wages, and which have a bearing upon the theory of supply and demand. I was at work with an associate, in the hottest part of the year, in a yard shut in on every side but the south, engaged in repairs of the heaviest description. Ten hours were demanded of us, and we were paid \$1 75 per day. My residence required five miles of walking, going to and returning from work, while my companion traveled ten miles by rail and four by foot. We knew that our employer was getting at least \$2 50 and probably \$3 a day for our labor, and we asked an advance to \$2. He refused, and we told him we should leave at night, which we did, he persisting in his refusal. Privately he urged us to stay, but would make no concession as to wages. In his heart I suppose he was ready to concede that my partner and myself were worth even more than we asked, but he denied our request because our example would affect his other men. He was the owner of a steam-mill, and had succeeded in monopolizing enough of the business of the place to dictate wages. He had repeatedly been able to put wages down to \$1 50 (gold) by the importation of non-resident labor, thus reducing intelligent and industrious resident workmen to extreme straits.

But a still lower depth in the experience of labor is found when, having been reduced so low that sheer shame stops the direct progress downwards, work is jobbed out at the most ruinous rates to the prosperous, who, living in a well-stored house of their own, can and do resort to expedients to obtain employment which would disgrace the lower animals in a struggle for a bone.

I have seen men whose relations to labor were thus unnatural, deal in an entirely different way with tradesmen in the purchase of merchandise. Yet, while I have known dealers to sell for nearly \$30 what only cost them \$3, I never heard of anything like animosity being engendered by the transaction; the same parties will go the next day and buy at the same place any article they need which they can get as low as elsewhere.

I am impressed with a conviction that human labor is but partially influenced by the laws of supply and demand, and the working classes have ascertained by sad experience that their supposed equality with capital is a delusion. They see that there is no such freedom of upward range in wages as is claimed to exist. There is always an abrupt and sharply-defined point limiting the advance in income, corresponding in its nature to the fixed height of the fluid-column in the exhausted receiver, while on the descending scale of wage the almost uniformly mournful history of labor proves the inadequacy of the competitive system to meet, in any fair estimate, the needs of the laborer or the demands of equity in his behalf.

In reaching the truth on these matters one needs to distrust the major part of the influences under which he has been educated.

Twenty-three years ago, in a debate in the British House of Lords upon the ten-hour factory bill, Earl Ellesmere used these words: "It is a remarkable fact, everywhere and at all times the same, that the more hours men work in any staple branch of manufactures the less they receive in the form of wages." This was the first influential recognition of the subtle and anomalous influences which make the wage return for labor so generally an incubus rather than an inspiration. The candid recognition of this and kindred industrial truths by the influential elements of the American community has been hindered by a variety of influences.

While I do not deny that the abolition of entail, education, the ballot, legal freedom to think, speak, write and print, land in fee simple, and the fact that—

"Uncle Sam is rich enough to give us all a farm,"

have exerted very ameliorating effects upon labor, I must still claim that the evidently unequal distribution of the profits of labor proves the existing relations of capital to its partner to be very defective. In fifteen of the most important places in the Commonwealth, according to the estimate of May 1, 1869, the valuation reaches \$859,647,462, and the number

of polls is 131,307; while in the whole State the valuation is \$1,341,069,403, with 337,043 as the number of polls. The outlines of this picture come into still bolder relief when we realize to what extent property is undervalued.

American society struggles to-day with the first throes of an awakening sensibility to the gross inadequacy of the industrial system into which our English ancestors blundered five hundred years ago. That it fails to meet the needs of the republican, and, to some extent, Christianized civilization of the present time, is plain enough.

There is not the least reason, broadly considered, to suppose that the first award to labor in the shape of wages bears any just relation to production. The vast amounts hoarded in our cities have gone, by the terms of the original division of the results of toil, into the hands of capital. If there was ever a State in the world pre-eminent for the laborious industry, frugality, intelligence and temperance of its working people, Massachusetts is that State. Labor has not had its fair share and then lost it through idleness, extravagance, or debauchery, but the vicious principles of a corrupt industrial and financial system have robbed it, until the amazing exhibit which the facts and figures make has ceased to alarm the public conscience.

Here is a whole working population absorbed in material pursuits, or at least so engrossed for thirteen or fourteen hours each day as to turn to a superficial farce the attempted devotion of a brief interval of exhausted effort to spiritual, intellectual, ideal or social avocations. The absolute abandonment of the privacy of the home by our respectable working class in double occupancy of a house; the full development of the same poverty-stricken tendency in the abominations of our tenement-houses; the exodus from the State each year, as shown by the United States census, of five or six thousand of the best class of our working people; the withdrawal from our churches of laboring people utterly unable, by their utmost effort, to command an income sufficient for such expense; the prodigious stimulus to fraud and crime which results from the low average income of the people; the prostitution and misery of woman, forced out of her natural sphere by the general avoidance of marriage obligations on account of expense; all these are confidently pointed to, by intelligent and thoughtful labor, as inevitably resulting from the appalling inequality in the distribution of wealth.

The rapid manner in which our public lands are being taken up, both for corporate and private purposes, shows that a few years will deprive us of this, the greatest easement hitherto of the laboring classes.

These considerations impart great interest to the discovery of the hidden influences, everywhere operative, which are contributing to such injurious

results, and warrant the searching scrutiny into personal affairs which the Bureau has adopted in its circulars.

It is clear to me that the controlling forces in industrial matters at the present time are, for the most part, of a lowering character, and that the progress which society is making does not come to any very large extent from its industry, but from other sources, which are only effectual as they neutralize or qualify its evil tendencies.

It was useless for those worthy and considerate resident workmen, already alluded to, to attempt to compete with the outside parties who were brought in contact with them. Some of the reasons why they could not I have given, and I have still further shown how, if they had attempted it, their only hope of an increase of income was based upon exertions which would have made that accession only temporary, while the evil entailed upon them by the increase of their hours would have been permanent; for all experience of workmen has shown that it is by just such efforts as this that excessive hours of labor are fastened upon the trades, while wages, step by step, and by a process which might well provoke the laughter of a fiend, grow small by degrees and ruinously less, as one item after another of the common refinements and decencies of civilization are given up, until literal starvation wage is reached.

As is commonly expressed, they give up needless expenses because they earn so little; while the truth is that they earn or produce enough to support whole classes in ease, if not in luxury. But it should be stated in this way: they work so long that they have not sufficient time to engage in those duties or pleasures which would require expense, and what little time they have is useless to them on account of fatigue and the lowering effect upon mind and body of excessive labor. The reduction in wage in this aspect of labor follows, partly, because, having few wants, they do not make vigorous effort to prevent it; partly because the employer, greedy for gain, knows, or assumes, that their scale of living is so low that they will bear it; and partly because, having acted in selfish disregard of the common good in increasing their hours of labor against the wish of their fellows, the workmen feel no confidence in each other, so that they cannot unitedly resist the depressing influences to which they are subjected.

I have been dealing for the most part with those facts and conditions which show that an increase of hours means a reduction of wage, with only an incidental recognition of the truth that a reduction of hours means an increase of wages.

I have shown the existence in the community of influences operating, on the most extensive scale, to depress the wage of labor below what it would be if there was really a free operation of the laws of supply and demand, as those terms are understood to apply to the purchase and sale of mer-

chandise. I have also endeavored to show, what I have seen very clearly in my own personal experience, that society is not willing to accept the operation of those laws when they pass beyond certain limits understood to base themselves upon the necessities of the laborer, but that whenever, by an unusual concurrence of events, labor approximates to an equality with capital, in the upward tendency of wages, the employing interest, as a whole, loses its self-possession, and inflicts with passionate severity certain penalties upon the luckless laborer who presumes, with *Oliver Twist*, "to ask for more."

I do not, however, wish to be understood as asserting that these are the only forces operative upon labor, in influencing the rates of wages. On the contrary, I fully admit that the gradual rise of wage, from the two pennies of the laborer of five hundred years ago to the two dollars of the present day, has been largely dependent upon influences which are connected quite definitely with the laws of supply and demand.

Returning again to the workshop and community, which I have taken as a type of the general effect of long hours and the wage system, I remark that the demand for increased wages came almost exclusively from those who attended religious service; their urgency evidently basing itself upon the necessity they were under of keeping a Sabbath suit of clothing for themselves and their children and meeting church expenses.

I well recollect the effect upon my mind of witnessing a number of workmen—brought casually under the influence of a revival—as they entered the vestry upon a week-day evening, clad in their green baize short jackets, commonly worn by our class at that time. They were not so insensible to the proprieties of the place as might be supposed. The fact was that they had no Sabbath suit; neither their week-day, evening, nor their Sabbath habits calling for any change of working clothes. How can a laboring community, which does not finish its evening meal until half past seven or eight, be expected to comply, in their exhausted condition, with the social decencies, a change of dress, etc., necessary to attend the prayer meeting or any evening gathering of the various organizations which bring the different classes of society together? The very thought is repulsive to all except to the most determined minds.

Those workmen who are able by evening liberation from labor to form a connection with our churches, masonic and reformatory organizations, make acquaintance with those who are above them in their style of living. They incidentally visit them at their homes, and, seeing articles of use, ornament and luxury, intelligent interest and strong desires are excited. Short hour days thus raise wages by powerfully tending to create a class who, by improved minds and hopes, will earn more as a body, and who, pressed by the most powerful stimulus, the desire for social elevation, will

form an invincible barrier—under any fair chance for the operation of the laws of supply and demand—to an extreme and permanent reduction of wage. Their short day's labor enables them to enter into these steady relations, and the social ideas and habits thus engendered imperatively demand for their exercise the continuance of exemption from severe toil. This, being clearly seen and complied with, saves them from the terrible effects of overwork, with its sure results of lessened income, and throws the whole force of character and ability, in a direction in the expansion of wage, to the utmost limits which the system permits.

The whole range of expenses, dress, pew rent, contributions, lectures, books, newspapers, excursions, &c., suggested by the foregoing remarks, cannot be less than ten per cent. of the average income of the respectable working class, and in some cases they reached nearly double that rate, making in their aggregate the one hundred dollars or more of surplus income, which Wendell Phillips truly characterizes, in his recently expressed views on the Coolie question, as decisive of the future condition of labor in this country.

It is mockery to tell us that we can all obtain positions. Aside from its intrinsic and evident impossibility, the unavailing fierceness of the struggle for office, positions as clerks, salesmen, teachers, &c., and the overcrowded ranks of all the professions, proves the contrary. Intelligent labor has already been driven to the point of desperation by the influx of classes having many resemblances to us in a common origin. It is incontrovertible that, even in this mild form, competition has put to the severest test the just institutions of religion and government to which we have invited them. When, in the presidential election of 1864, the Sixth Corps entered New York, and a cordon of our gunboats lay in the North and East rivers, with their batteries shotted and turned upon the city, we had an impressive illustration of the legitimate and inevitable results of our present industrial system.

The only remedy lies in taking the straight and narrow road which leads to national, as it does to individual, immortality, in the embodiment in law and custom of those principles of elevated morality, which recognize *an equitable distribution of labor and its reward* as essential to the continued existence of our republic.

This will insure the culture of the working classes, and by its effect upon other interests of society will gradually change them into producers, thus relieving labor from their support, transforming them, from their present position of hoarders and consumers of the wealth produced by others, into helpers of the common good.

EVIDENCE TAKEN AT PITTSBURG.

November 8, 1873.

In compliance with a request made on behalf of the workmen of the bituminous coal mines, measures were taken to hear testimony on the questions at issue between the employers and employed. That the taking of such testimony might be attended with all possible good results, the efforts of the Bureau were directed to having both parties present for purposes of cross-examination.

The operators, however, showing no disposition to take part in the proceeding, an appointment was made for Saturday, November 8, 1873, at 96½ Fourth avenue, Pittsburg, when testimony would be taken, *ex parte*, if necessary, at the same time, however, giving notice to the operators that they might attend and participate if they so elected.

The following points were submitted by the workmen, as those upon which they desired testimony to be taken :

1st. The differences existing between workmen and employers in the matter of payment for "nut coal."

2d. The necessity of a ventilation law, and the present state of coal mines in reference to the health and safety of miners.

3d. The practice of employing children in the mines. Its influence on their physical health and moral character.

4th. Long hours, and their baneful influence on the morality of the mining population.

On the day appointed the commissioner and deputy met a number of the workmen at the above place, and before proceeding with the business of the day, the workmen sent out two of their number to invite and try to prevail on some of the representative operators to attend, but failed. The witnesses, six in number, were sworn by J. H. Hillerman, Esq., a notary public of and for Pittsburg, and the examination proceeded as follows :

1st witness—George Archbold, on the difficulties attending the nut coal question :

This has been a subject of contention for seven years between the operators and miners. Up to seven years ago we filled the wagons on the measure system, then screens were put in, with inch and a half between the bars, length of screen from 12 to 16 feet, and width from 5 to 6 feet. The width between the bars was afterward increased to 1¾ inches, and in some cases (Love's) as high as two inches.

The miners are only paid for what goes over the screen, and the quantity that falls through is affected by the superficial size of the screen, as well as the width between the bars.

The coal after passing through the screen (nut coal) after the finer dust is taken out, is sold for about two cents per bushel less in the Pittsburg market than lump coal. The percentage of this nut coal is about 20 to 25 per cent. of the whole. We considered we were entitled to pay for nut coal, and we asked two cents per bushel for the nut coal when we were getting four cents for lump. This the operators refused to pay, and it was the cause of the present strike, in connection with the fact that the operators would not recognize 76 lbs. as a bushel of coal, but were taking 80 lbs. and upwards. Another cause was, the screens were growing larger between the bars; some as high as two inches between the bars. Some, also, were increasing in superficial capacity; the larger the screen is the more coal falls through it, and the larger the percentage of nut coal, and another thing we had to complain of was, that justice was not done us even in this condition of things. I give a case in illustration: In Sawmill Run, (McKinney's bank,) the men were averaging twenty-three bushels lump to the car and were discontented, they thought they were not getting just weight, and demanded a change of weigh bosses. The operator and men appointed a new weigh boss between them, and without any change in the scales, and with the cars filled the same as before, they ran twenty-six bushels to the car under the new weigh boss. I know this of my own knowledge, but of other collieries I only know of such occurrences by report.

This continued about 4 or 5 years a fruitful source of irritation and strife, before application was made to the Legislature for redress.

The "screen bill" was introduced at the instance of the miners, and passed. Its provisions have all been respected by the operators, except that providing for payment for "nut coal." We have asked two cents per bushel for "nut" that passes through an inch and a half screen, but have failed thus far to get it. The mine wagons or cars hold from 26 to 32 bushels, and whatever coal passes through the screens we don't get paid for. The coal that passes over the screen is weighed and paid for *now*, at the rate of 76 lbs. to the bushel. By this we lose from 20 to 25 per cent. In other words, we have to mine 100 bushels of coal to get paid for from 75 to 80 bushels.

We do not see what further can be done by legislation in this direction, unless some plan can be devised to insure obedience to the law.

2d question. The present state of the mines in reference to the health and safety of miners, and the necessity of a ventilation law.

George Archbold, *continued*:

Question by commissioner. Does the present ventilation law apply to the bituminous coal mines?

Answer. No, sir; it does not apply. We have no ventilation law on the statutes to regulate the ventilation of the mines in this region, and the ventilation is in a very wretched condition.

Question. What seems to be the trouble?

Answer. We have black damp very abundant, varying from 8 to 10, and sometimes even as high as 12 per cent. in the air we have to breathe.

Question. Are any measures taken to secure ventilation?

Answer. The old system, used 150 years ago, still prevails. It is very inadequate, and the air is generally very much vitiated.

Question. Could the new systems of ventilation be applied in these mines as readily, and at as little expense as in the anthracite mines?

Answer. They could; and more easily, and they are as greatly needed. The effect of this black damp on the miners is this. Its influence on the human system is very debilitating. A miner working in air, vitiated by this gas, for want of the necessary supply of oxygen becomes stupified and dull. I think this is one of the reasons why miners are so little given to seek mental improvement, and why they are often addicted to strong drink. They fly to stimulants for relief, when they are debilitated and weak after spending a few hours in such vitiated air. It also lays the foundation of lung diseases to which miners are so subject, especially in advanced years. The mines are also infected often with hydrogen gas; of this, however, not so much so as the anthracite mines; but as the workings get larger and we get further under the hills, we find the quantity of this hydrogen increases. Explosions have occurred from it in this region. Another source of danger is, (in mines where machinery is used to take the coal out) the want of second outlets for the men to travel out and in. We intend to ask for an official investigation of the condition of the mines in this regard, or for the passage of a law similar to the ventilation and inspection laws of the anthracite region. The workmen now have to travel on the same road that the "Dilly" runs on. In a short time the greater portion of the coal in this region will be brought out by machinery. Many of these "Dilly" roads are a thousand and more yards long, and men are in great danger when trains are passing.

3d question. The present practice of employing children in the mines. Its influence on their physical health and moral character.

George Archbold, *continued*:

There is a practice of taking boys into the banks very young—from 8 to 9 years of age. They work from 10 to 12 hours per day, and hence are deprived of the advantages of schooling. They likewise suffer from the bad air of the mines. They sometimes work as "Trappers," but a great many work with their fathers. I have found in my experience, that fathers take their boys in as soon as they can get a car allowed for them, for the

sake of earning a little more money. The little boys contract vicious habits. I think no boys ought to go into the mines under 12 years of age, nor before they can read and write. A great many boys have been crippled in the mines, through being too young to understand the dangers surrounding them.

4th question. Long hours, and their baneful influence on the morality of the mining population.

George Archbold, *continued*:

I don't think we can do anything to remedy the evils of long hours of labor, until the workmen are more generally educated. The men in this section work very long hours. In railway pits, where work is steady, they work about twelve hours per day. In the river pits, where work is not so steady, they work from twelve to eighteen hours per day during the run.

The evil effects of long hours are, that they exhaust the system, and produce a condition of lassitude and depression that indisposes those who so work, to healthy mental exertion. Hence there are very few of the miners who are readers. If hours of labor were not so long and exhaustive, the men would have more time and energy, and a greater disposition to read and seek cultivation for their minds. I think long hours tend very greatly to increase intemperance, and added to the effect of bad or vitiated air, leave men in just that state of physical and mental exhaustion that makes the craving for relief in stimulants irresistible. I have noticed that where the hours of labor are longest, hard drinking is most prevalent.

MISCELLANEOUS QUESTIONS BY COMMISSIONER.

George Archbold, *continued*:

Question. About what proportion of day-workers would there be in a hundred hands in the average collieries in this region?

Answer. In our mines there are about ten per cent. of day-workers.

Question. Does that ten per cent. include boys?

Answer. No.

Question. About how many boys would be the average to the hundred hands? I mean boys employed by the company or operator.

Answer. Some places none; other places six or eight, varying with the extent of operation. I should say the average would be about four boys to the one hundred hands.

Question. At what would you estimate the average earnings of contract miners? I don't mean the best or the worst workmen, but fair average, men who work about right.

Answer. In districts I have been in, we average from \$2 00 to \$2 50 per day; at my place we work steady, nearly all the year round, and we run from \$25 00 to \$30 00 for pay of two weeks, at the four cent per bushel

rates. Drivers' wages are \$2 00 per day. Pit drivers also get \$2 00 per day; the wages for inside and outside laborers are about the same.

Question. About at what do boys' wages generally run?

Answer. They run from \$3 00 to \$4 00 per week, or from 50 to 75 cents per day.

(Signed)

GEORGE ARCHBOLD.

Sworn and subscribed before me, this 8th day of November, A. D. 1873.

J. H. HILLERMAN,

Notary Public.

2d witness—William Street:

On the difficulties attending the nut coal question.

About 1859, before the great strike for scales, we were loading by the wagon. The men thought they were dishonestly dealt with, hence they demanded another way of determining the amount of coal they should be paid for. They had a long strike for scales. The scales were first introduced in the railroad pits. The miners found that instead of having been credited with the full amount of coal mined, they had been losing about five bushels on a wagon. Things got better, after the adoption of the scales, for some time, but finally the operators moved the scales from the pits mouth, down under the "tipple," at the same time enlarging their screens. Thus making matters as bad as ever. Taking a marketable coal without giving an equivalent. Matters got worse by reason of the enlargement of the screens, both between the bars and in superficial area. The miners determined to obtain redress, and could see no other way than by legislation, and they asked for the passage of the "miners' protection bill," otherwise known as the "screen bill."

I corroborate Mr. Archbold's statements of the facts presented in his testimony. At the bank where I work, when I first went there, we got 28 bushels to the car, and afterwards we could not get more than 26 bushels to the same car. The amount of nut coal will vary in amount in the same mine, two men working in adjoining runs, may sometimes have a difference of four bushels in the hundred of nut coal, owing to inequalities in the seam.

Question. Is there not some reason in the representations of the operators that if miners were paid for nut coal there would be more slovenly and unskillful coal digging, what is called butchering the coal?

Answer. No, because it is the interest of the miners to make as much big coal as possible, whether he gets pay for nut or not, as they get more for lump than they do for nut, excess of nut coal is made through want of skill, and the only remedy for it is to employ more skillful workmen.

Another reason why we claim pay for mining nut coal is that we have to pay for it at the mines, where I am working we have to pay about five cents per bushel for it for our own use.

2d question. The present state of the mines in reference to the health and safety of miners, and the necessity of a ventilation law.

Wm. Street, *continued*:

I went to work at Hite's coal mine in 1870. The pit boss had never dug coal. That summer through, for want of proper management, we were troubled with "stone gas," or "white damp." We told him we could not work in there, he would come in fresh from the open air, and after stopping about ten minutes would tell us the air was good enough, that there was no bad air there. The entry men, about 50 yards ahead of us, were at the same time unable to stay in more than two hours a day, and yet he argued that there was no bad air there; that, in fact, there was no such thing as "white damp," that he had read all about noxious gasses. I told him there was white damp treated of in English works, but he ignored its existence. Finally he became convinced that something was wrong, and started an air course in solid coal, where it took them two months to get it through, the men all the time working in this bad air, and suffering such pain as those only know who have worked in this gas. I worked, sometime after that, in another entry in the same pit, and here too through want of proper air ways there was trouble; when the wind would be in one direction, I would have vitiated air, while those on my right would have wholesome air, when the wind would change to the opposite direction, mine would be good and theirs bad. I told him if he would put up a door at a certain place in a cross entry that we would all have good air, but he said he could not do it, it would be too much trouble for the drivers to open and shut it. A man who does not understand mining makes not only a bad pit boss for the men, but a bad manager for the operator, because through mismanagement he will lose at many times coal that a good manager could take out. It not only injures the health of men to work in bad air, but it is calculated to prevent them from ever becoming intelligent men, because they become benumbed in their mental faculties; lose all energy of purpose, and in place of seeking intellectual improvement, they seek only sensual enjoyments, such only as appeal to the animal passions. drinking, fighting, &c.

Question. In order to remedy this evil you think a ventilation law is needed?

Answer. Yes, a law is needed, which beside ventilation, will require the employment of persons more conversant with mining than the generality of mining bosses are. My idea is that the law should provide for the supervision of mines by men of sufficient skill.

3d question. The present practice of employing children in the mines. Its influence on their physical health and moral character.

On this point I corroborate all that George Archbold has said. We are greatly troubled with that evil at our place.

Question by commissioner. What does Mr. Archbold mean in his testimony, when he says that "fathers take their boys into the mines as soon as they can get a car for them?"

Answer. When Mr. Archbold speaks of a father getting a car for his boy, it means that when work is scarce, and each man is allowed only two cars per day, he can get three if he has a boy, so that he has an advantage over a man who has no boy to take in. In a great many cases the boy is not able to dig coal or even help load a wagon, and consequently does nothing. This is mostly granted as a favor to the man, and is no profit to the owner, while the boy often runs about the bank learning mischief and vice, and in danger of being hurt.

4th question. Long hours and their baneful influence on the morality of the mining population.

Wm. Street, *continued* :

The effect of long hours cannot be too greatly deprecated. Mr. Archbold's is rather an under than over statement of the truth.

Commissioner. It is often asserted that the shorter the hours of labor the more dissipation there is among workmen. That if eight hours should become the rule, drunkenness would be increased, and that the only profit by the change, would inure to the liquor dealer. I want your opinion on this point in full.

Witness. My experience makes my conclusion just the reverse of that. When men work short hours, even if they are ignorant and unlearned, the tendency has been to keep them from the tavern. They generally take to some out-door occupation, as gardening or working about their houses ; whereas, when they have worked ten to thirteen hours a day they are too tired to take these up even as a pastime, and they fly to the tavern as the only means of relaxation. In my own case, when I have worked too long and became excessively tired, I have felt no disposition to read or make intellectual effort of any kind. My body has been too wearied, and would be incapable of exertion. All my observation and experience proves the assertion false, "that shortening the hours of labor tends to increase dissipation and immorality.

WILLIAM STREET.

Sworn and subscribed before me, the 8th day of November, 1873.

J. H. HILLERMAN,

Notary Public.

3d witness—Augustus Stinner:

In answer to questions by the commissioner. I can corroborate all that has been said by the former witnesses, but would like to add something additional that I think ought to be put down. Another reason why the miners took up the nut coal question was this: that it has been advertised as a merchantable article, held at a high price, the different operators often changing their screens so as to get more nut coal for nothing. This nut coal has a market in the city of Pittsburg, and also in most of the cities along the Ohio river.

One mine does not always produce the same amount of nut coal as another, but they vary more or less in the quantity, and this is another reason why it should be paid for separately.

It has been and is demanded that we should give the nut coal for nothing, and claimed that the price got for it only made up losses on the lump, as the price often varied. A great deal of the trouble among the miners in the county has its origin in the fact that some operators received a great deal more coal in the shape of nut than others, and this costing nothing to dig, they could undersell their neighbor operators in the market; then in self-defence the others would enlarge their screens, and so the matter grew worse and worse. The "miners' protection bill," recently passed, should be amended in the first section so as to provide that the miners should be credited for *all the different sizes* of coal that are prepared for market, taken to market, or otherwise sold. The operators do not seem to care for the second section of the bill, and I suppose there is no remedy, unless there could be a penal clause added to it to compel respect for its provisions. We suffer greatly, also, in this county from private or special articles of agreement that nullify the enacted law. These private or special agreements are made when the workman is in very necessitous circumstances, and is tempted by this pressure of his needs to yield to conditions that neutralize the benefits of the law and tend to drag his fellows down to his level.

2d question. The necessity of a ventilation law, and the present state of coal mines in reference to the health and safety of miners.

I claim an act is necessary to secure the health and lives of miners, as the present system or rules are injurious to health, and dangerous to life. The air is often so bad that the common lard oil lamp will die out in it, and even turpentine will not burn freely. This noxious air, I am certain, has ruined my health. I have known miners to have been found and taken out of the mines dead after night, and I think that it should be required that some one should be appointed at each mine to the duty of knowing that each miner is out of the mine.

I have known men to have been hurt by restricting them to too small an amount of timber for supporting the roof. I have known many, even experienced miners, to be hurt by putting them in dangerous places. The air and general safety of our mines, could be easily put in better condition, if better mining bosses were employed. In many cases some pet or favorite is employed in this position, whether he is competent from knowledge and experience or not.

3d question. Employment of children in mines.

On this point I can only corroborate what the former witnesses have said: When I see a rowdy, or rough, ignorant boy, I say to myself, "that boy was raised in a coal mine."

4th question. Long hours.

Long hours have a bad effect, as far as I have experienced; it makes the miners very drowsy and careless. To a great many it is a *terror*, when they think of the long hours they have to work on the next day. The strong robust man in our trade may stand these long hours and make good wages thereby, while he remains so; but the weaker and older man cannot stand it, and if necessity compels him to work these long hours, which it generally does, in order to get his share of the work, it makes him sick, especially in the improperly managed mines, where bad air and water exist.

In many such cases I have known miners to say they felt like getting on a drunk.

Question by commissioner. To every hundred workmen, how many are working at day-wages?

Answer. As I work in what is known as a country bank, where all work at piece work, I can not say.

AUGUSTUS STINNER.

Sworn and subscribed before me, this 8th day of November, 1873.

J. H. HILLERMAN,

Notary Public.

4th Witness—Anthony Bell:

I fully corroborate all the statements made by the former witnesses. If I went on I would only repeat the statement already made. I would only repeat what has already been said.

ANTHONY BELL.

Sworn and subscribed before me, this 8th day of November, 1873.

J. H. HILLERMAN,

Notary Public.

5th witness—Eli Enscoe:

I don't think it would be necessary for me to add any thing to what has been said by the former witnesses. The mines I work in, were the first to introduce screens and scales, and on these terms, viz: He was

going to put in screens and weigh the coal, but he would give the men one cent per bushel more for coal that passed over the screen than when dug by measure. That is, he would give five dollars per hundred bushels instead of four dollars, but when pay day came he refused, and said the nut coal was his pocket money. The consequence was the leading miners opposed this, but were "victimized," and had to go elsewhere for work.

I corroborate the statements made by the former witnesses.

The average wages in my bank for 8 or 9 months is, \$2 50 per day. We work 12 hours per day. The day men are paid more than the miners by contract make. I have often tried to get work on the roads at \$2 50 per day because of the steadier work.

ELI ENSCOE.

Sworn and subscribed before me, this 8th day of November, 1873.

J. H. HILLERMAN,
Notary Public.

6th witness—William Chalmers:

I endorse the testimony of the preceeding witnesses. In regard to nut coal, I will add, that I know one case where the operator shut his work because he was not getting enough nut coal.

I corroborate the other witnesses in regard to ventilation and the employment of children, and long hours.

In regard to long hours, I have heard miners say, "that they could not stand it unless they took their whisky regularly," while I know men who work moderate hours, do not need nor take it.

Commissioner. What proportion of men in a hundred employed in mines get paid by the day?

Answer. The mines in which I work employ 120 hands, of these 6 are drivers, 3 are trimmers, 1 is weigh-boss, 1 tipple man, 1 roadsman, 1 pit boss, 1 check-weighmaster, 2 blacksmiths, 1 carpenter, and 1 boy for greasing wagons—in all 18.

Commissioner. About what are the average earnings of miners working piece work?

Answer. From the best of my knowledge they will not exceed \$2 50 per day; the average will be nearer \$2 25; for day workers, some places they get from \$3 down to \$2, and in some cases even as low as \$1 75 and \$1 50 per day; from my experience, I would say men employed at day wages are the best paid—earn most—get most money; from what I know, I believe this to be so.

I would like to urge an authoritative investigation of affairs about the mines and in them, to test and remove the prejudices existing against the representations of the miners.

WILLIAM CHALMERS.

Sworn and subscribed before me; this 8th day of November, 1873.

J. H. HILLERMAN,

Notary Public.

LABOR TROUBLES IN THE COAL MINES OF TIOGA COUNTY.

There are in Tioga county some very large bituminous collieries, situated at Morris Run, about four miles from Blossburg; Arnot, some three miles; Fall Brook, seven; and Antrim, seven miles from the same place.

Early in the summer information was furnished to the Bureau indirectly of dissatisfaction at Fall Brook, and giving alleged reasons for it. This information was embodied in a letter to a prominent officer of the "Miners' and Laborers' Benevolent Union," who gave the use of it to the Bureau on the condition that the writers' name should not be divulged, on account of the injury it would do him in his business. The letter, so far as it refers to the matter under consideration, is as follows, viz:

"The land is owned by a man named Magee, and the parties working the collieries do business under the name of the 'Fall Brook Coal Company;' they employ at least one thousand men in this place, with D. W. Knight, as superintendent. The miners are paid about fifty-five cents per ton for mining the coal, and work on an average about four days per week, and average about five tons per day. They receive in payment a 'bogus' money issued by the company; this, in five, ten, fifteen, twenty-five, and fifty cent pieces, is stamped out of 'gutta percha,' with the number on one side denoting its value, and the 'Fall Brook Coal Company' on the other side. This money is issued at any time during the month to the hands, if they desire it, providing they have work done for the amount called for. They also have a company store here, where they can receive the necessaries of life on presenting the so-called money, of course paying two prices for every article, as that is the object of issuing this money—to get it back again into their own pockets. They also issue bills to the amount of ten dollars. When a miner leaves and has any of this money left, they cash it with United States money. The superintendent makes all the laws, and those who are in his employ must abide by them, for instance: should a man get drunk and happen to quarrel with any person, there is a heavy fine imposed, and if he refuses to pay it he must leave the work. The other day one of the drivers had a very stubborn mule, and he beat him;

the superintendent saw him and fined him ten dollars. Many other little incidents of this kind I could mention if space would permit. The miners are mostly Swedes and Poles, with a sprinkling of Irish and Welch."*

A copy of this extraordinary letter was sent to the superintendent, with an invitation to write the Bureau any explanation he might desire to make. At the same time blanks were sent him, with the request that he would fill them and return.

The following letter was received in reply :

FALL BROOK, *December 2, 1873.*

DEPUTY COMMISSIONER OF STATISTICS, &c.—*Dear Sir:* In compliance with your request in communication of November 28th, allow me to say that I am very much surprised indeed that any one living near us should so far depart from the real truths as to furnish you such a report. The facts are these: The lands and coal mines belong to the heirs of the Hon. John Magee, deceased, who comprise the Fall Brook coal company, with Gen. Geo. J. Magee as president. We employ, when working full force, some 600 men, of which about 250 are miners, the majority being Scotch, balance Welsh, English and Irish, about equally divided, with a very few Swedes, *but no Poles at all*. We pay them for mining 55 cents per ton for height of 3 feet 10, and one cent per inch for every inch under, also allowing for every inch slate, yards of headings, &c., which rates are the same as paid by the Blossburg coal company; also Morris Run company, whose mines are adjoining the mines of this company, and the works are conducted on the same plan in the three respective mines. Each company have a store where the miner can find as good and even better selection than at most country stores. We have never prevented our men from going to Blossburg to trade, and when practicable run an extra train to enable them to go there did any desire to do so. We give orders at cashier's office for goods in store, and does the holder of order not purchase to the full amount of order, this store scrip is given in exchange, and *at no other time* is it used. We pay our men *regularly* on the 15th of every month, and until our last pay have never deviated from that rule—our September pay, (owing to the scarcity of currency caused by the panic,) being one month late. We have never paid our men *anything but cash*. Our men have had full work every day for the last year and a half until the panic, and we are working now four days per week, and the men are perfectly satisfied with it. Regarding arbitrary government, making laws, &c., by the manager, it is and always has been the custom in all this coal region for the manager to make rules for carrying on the work. But law and order exist here the same as in any other borough in the county, and were

*It should be noted that the writer of this letter was not a workingman for the company, but temporarily employed in the vicinity.

we not rigid in enforcing order, living in such a community, would be out of the question. Never has any employee been treated unjustly, to my knowledge and belief. When any one has committed a misdemeanor, which, in the manager's opinion, merits punishment by fine, the following note is served upon him :

"We shall charge your account \$—— for damage to property (or drunkenness and fighting) upon the ——th inst. Should you remain in the company's employ, this will be a legal collection.

(Signed)

"———, "
"Manager."

Does the person leave, the fine is never kept. This is the custom at all the mines in this district, and I will leave it to the men themselves, as to the injustice that has ever been practiced upon them. Your informant has done both the company and myself a great injustice in his report, and shows what little knowledge he has of our works by making statements so utterly untrue.

The instance spoken of regarding fining a driver for beating his mule, I will relate. The mule was heavily laden, and I dare say in no great hurry to get along, when the driver took a coal pick, striking the animal *twice*, inflicting a wound so serious that he was laid up for two weeks. I fined him, as before mentioned, \$10, and had he received his just deserts he would have been sent to jail.

I have given you the facts concerning works, &c., which, I trust, are satisfactory. I also enclose blank filled up, except prices, and would suggest you send some person to visit different mines in this region for prices and further particulars.

Thanking you for your consideration,

I am very respectfully yours,

D. W. KNIGHT,

Manager Fall Brook Coal Company.

We returned the blank to Mr. Knight with a request that he would fill in the prices, or wages, and an explanation of the reasons for asking it, since which he has not been heard from.

The *Mahanoy Valley Record*, of December 20, contained an account of the organization at Arnot of a "Miners' and Laborers' Benevolent Association," and the consequent discharge of the committee having it in charge, and threatened discharge of any of the workmen who might join it. Also a list of the grievances of which the men complained, in substance as follows, viz: Irregular and partial cash payments, and obligation to deal in the company's store where the charges for goods were largely in excess of the usual prices of private dealers; of payments in store scrip, upon which

the workmen had to suffer 10 per cent. discount; of short weight in their coal, which they were compelled to submit to without complaint or suffer discharge; of a system of requiring their signatures to leases of their houses containing an agreement to surrender possession thereof at ten days' notice, and of the company's seeking to compel their submission on penalty of being expelled therefrom on this peremptory notice, &c., &c.

This constituted so extraordinary a condition of things that it was believed that the Bureau could not in any other way carry out the design of its creation so effectively, as in visiting the locality, and ascertaining by personal observation and inquiry, what were the real facts. One of the clerks, therefore, started on the morning of December 23, to investigate the matter as deputy commissioner. Proceeding by way of Williamsport to Canton, and from thence by stage, he reached Fall Brook at half-past one on the 24th. On inquiring for Mr. Knight, the manager, he was told that he was away. It being reported in the town that an agent of the State Bureau of Statistics had arrived, a large number of the workmen gathered round him, eager to learn if there was any authority by which he could relieve them from their unfortunate position. After a short consideration, the deputy determined to take the statements of these men, and having procured a room for the purpose at the hotel, proceeded to take the following:

STATEMENT OF THE WORKMEN AT FALL BROOK.

At the time this trouble commenced, the workmen here were making no demands for redress of grievances.

It is true that we had long felt that in many respects the company's management was very arbitrary and unjust, in that, if any thing occurred that induced a workman to ask redress, whether an over charge in the store; fines arbitrarily enforced; loss on the scrip of the store that, although the company claim that it is not so intended, *does* circulate as money, and which as we have it in our pockets in the absence of lawful money that is not so easily obtained, we are compelled to use in purchasing from itinerant dealers, or at the market, and always at a loss to ourselves of about 10 per cent. on the dollar; a system of municipal management that makes the company practically the township or borough; all taxes, both in character and amount being, so far as we are permitted to know, determined on, assessed, and collected in the office, and for any thing that appears from any published audit, expended or retained there; taxes gathered under authority of the general laws of the State, from all the residents as if they were citizens, and expended on private property, not a street or a road in the borough being a highway, not a school house or society hall being public property; not a foot of the surface of the ground being granted for

All this was true, and we were not indifferent to it ; but at the time this occurred we were asking for no redress ; nor were we discussing or considering the propriety of doing so. The first we knew here of any trouble, was seeing the notices that were put up at all the collieries, as we have been informed on the same day. [The following is a correct copy of the notice above referred to, which was handed to the deputy commissioner by one of the workmen at Morris Run ; it is in the hand writing of one of the clerks in the Morris Run office, and is stamped with the official stamp of the company.]

“Notice is hereby given that on Saturday, the 13th inst., this company will pay all their miners for September who do not belong to the miners’ union proposed in Tioga county, Pa., and who pledge themselves not to join the same. Also, that we will pay up all miners, who do belong to the said union, in full, as soon as they are ready to settle their accounts and vacate our houses.

“1st. Are you a member of the Union of miners proposed in Tioga county, Pennsylvania, or any society of a similar character?

“2d. Are you willing, and do you pledge yourself not to join any such society?”

“3d. Are you willing, and do you pledge yourself to dissolve your connection with such society without delay, and not join the same again?

Stamped { Morris Run Coal Company,
Morris Run,
Tioga county, Pa. }

On the evening of the day on which we first saw these notices the men held a meeting, at which they agreed, after consultation, that they could not without an utter forfeiture of their manhood acquiesce in the conditions

contained in the notices. They appointed a committee to wait upon the manager, and ask him respectfully to withdraw them. After waiting on him, the committee reported that he said, "it was not in his power to comply with their request, as he had to obey orders." We have no fault to find, personally, with Mr. Knight or his subordinates, we have always found them fair, kind and honorable gentlemen. We believe that of their motion these tyrannical things would not be done.

On Saturday, 13th December, the men attended a mass meeting at Blossburg, which was called to consider what course ought to be pursued; returning, they went to work on Monday morning as usual, but were met by the bosses and told "that all who would not answer to the satisfaction of the company, the questions contained in the notice, must square up their work and quit." A very small number of the men, most of whom were Swedes, and understand the language imperfectly, appeared to acquiesce in the conditions and continued at work, but nearly all refused and quit. Notices requiring the surrender of our houses within ten days, were immediately served on those who refused, with some of whom the time has expired. No attempt has yet been made to enforce the order, but some twenty families have moved away in anticipation of its enforcement, most of them to the old country, while the rest are waiting the progress of events in the hope that some way may be found out of the difficulty.

The trouble is not a contest for advanced wages, the men are not on a strike, but the companies have struck against us, by seeking to force us to put on a badge of absolute serfdom, by signing an agreement not to do what we have as clear and complete a right to do as they have to organize their companies, and what they have no right to meddle with. We cannot consent to this degradation, and we have not met any one unconnected with the companies who thinks we ought to do so."

This statement is written from rough notes, to which are appended the names of six of the leading workmen certifying to their substantial truthfulness, but which are not appended here for obvious reasons.

On the morning of the 25th, Mr. Knight not returning, the deputy commissioner walked over to Morris Run, where he was met by large numbers of the workmen who were very anxious to learn if he brought them any hope of a settlement of the difficulty.

At this place he began immediately to take down the statements of the workmen, designing to call upon the manager, Mr. Nearing, in the evening.

STATEMENT OF THE WORKMEN AT MORRIS RUN.

After hearing the statement of the workmen at Fall Brook, and corroborating generally their evidence, they proceeded as follows:

Until this notice came out, (the copy of said notice was here handed to the commissioner, being the same as is inserted in the Fall Brook men's statement) we were at work, and for two days after. On the day after we saw the notice, Saturday, December 13, we held a meeting on the side of the mountain, and passed a resolution that we would continue to work until we were stopped. The notices were put up at all the collieries on the same day, at Morris Run, Fall Brook, Arnot and Antrim. In conformity with our resolution, we started to work as usual on Monday morning, when W. S. Nearing, the manager or agent, came up to the mines and told us that if we belonged to the miners' union, proposed in Tioga county, we would never work for this company again, unless we gave satisfactory answers to the questions contained in the notice; we then went home, and immediately after, notices were served upon most of us to leave our houses within ten days. At this time we were not asking for any redress of grievances, and for no advance of pay; we were not even pressing for immediate payment of money due. The months of September and October were over due, and the month of November, nearly, while almost the half of December had been worked, and no pay had been received since that for August, except the store scrip that our necessities compelled us to take in large quantities, and in the use of which we had to suffer a loss of about ten per cent. In the face of these facts, the companies, according to the terms of their notice, refused to pay us any of the money due to us, unless we agreed to degrade ourselves by answering the questions it contained to their satisfaction, or moved out of our houses and delivered up the keys.

We had organized the association for the purpose of becoming a part of the "National Miners' and Laborers' Benevolent Association," (which as a State organization is chartered by act of the Legislature,) because we believed that our interests and general welfare would be promoted thereby, never dreaming for a moment that our right to do so would be called in question by any one; and when Mr. Nearing, or the companies through him, presumed to dictate to us what lawful associations we should form, or how we should dispose ourselves in matters that did not interfere with their rights, we felt that whatever of manhood we were possessed of required that we should resist the assumption.

With regard to the grievances attributed to us by the *Mahanoy Valley Record*, our desire that nothing should go out as from us that is not strictly true, impels us to say that the first grievance as stated in that paper is an error. The companies have always paid us regularly until the last three months. Nor is it entirely true that we are compelled to deal in the companies' stores; there is no such requirement in any order or rule of the companies directly, though pressure is indirectly brought to bear in that direction, and some have been discharged, and more threatened

with discharge for not doing so. The statement that we have to pay in these stores from 25 to 50 per cent. higher than elsewhere is also an error. We believe that the prices range generally *about the same now* as elsewhere, except for flour and a few other articles. A reduction of about 10 per cent. has taken place in the prices since this trouble began.

There is, however, one thing that we do complain of, and that is that farmers and other dealers are not allowed to sell in the township any such articles as are kept in the stores, as cheese, chop, flour and feed, nor any such articles as peddlers usually carry. No other persons are allowed to keep any stores in the township that come in competition with the company, and if workmen buy of such they are threatened, and sometimes discharged.

The manner in which the scrip is discounted is as follows: If a workman wants money between pay days, and goes to the office for it, he cannot get it without a special order from the agent, but he can at all times get the company's store scrip, provided they are indebted to him to the amount he asks for; he therefore takes it and uses it to buy anything he requires. If in the company's store, it is the same as money; but if purchasing from others, say from a farmer a pound of butter, if the butter is 30 cents for currency, he must pay in scrip 35 cents, &c. The farmer, after market, can take this scrip to the store and get its face in goods; but if he goes to the office and presents ten dollars' worth to be changed for currency, he must pay a discount of 10 per cent. The operation amounts practically to a tax of ten per cent. on the workmen for the privilege of buying from whom they please, and this only of whom and what the company pleases to permit to sell or be sold in the market of the borough.

In the matter of township affairs, the company is practically the township. It is true that assessors, tax collectors, supervisors, &c., are elected as in other townships; but the amount of tax, and who shall pay, appears to be determined in the company's office. To illustrate: One of the workmen, Mr. L. G. E., found a charge of one dollar on his pay ticket, marked R. tax. He went to the assessor and asked him what it meant. The assessor said it must be road tax. Mr. E. said that could not be, for he had paid his road tax last month. The assessor then said he had better go and see the supervisor. The supervisor said that he was notified to go to the office to levy a tax; he did not know what for, and that when he got to the office there was no one there, and he knew no more about it. The tax still stands charged against Mr. E. There has been no pay since.

(It should be noted here that the supervisor was present during this statement, and when asked if it was true, replied, "Don't ask me; I don't want to be mixed up in it.")

On another occasion a young man under age was charged tax on his due bill, or pay ticket, which he refused to pay. The assessor told him he must

pay it or "go down the road." After a long altercation, the assessor told him to see Mr. Nearing. He did so, and Mr. Nearing told him if he was not satisfied he could leave. The young man still persisted, and said he *would* leave before he would pay it. The charge was finally withdrawn, but it was never known who made the assessment, or for what purpose.

Another complaint is that the miners do not get just weight for the coal they mine. One of the men, Mr. Wm. H., states as follows: "I went to the weigh boss and asked him if my coal was not light? He said he did not know. I told him I thought it was light, and he replied that Mr. Nearing forbid his giving so much weight; that he gave all that Mr. Nearing allowed him to give. I said to him, do you think you are doing justice? And he replied no; I know I am not giving you just weight, but I can't do any better. There was never any formal demand made upon Mr. Nearing with regard to weight, but complaint has been made to the bosses, and the answer has been, if you do not like it you can leave.

"We want it distinctly understood that we do not wish to force any man to join the Union, neither now or at any other time; we do not claim the right to interfere with our employers in the legitimate management of their business. We held a meeting this morning (Christmas day) at which, by a unanimous vote, we agreed that we did not claim the right and would not force any man's inclination, that this was a matter for each man to settle with his own conscience and judgment, and that any man who thought he ought to go to work on the company's terms, was at liberty to do so, and we would protect him in it, if he needed protection. We are willing to give Mr. Nearing our pledge to this effect and bind ourselves to it in every way that it is possible that we should be bound. But we are equally determined to join or form such organizations (not unlawful) as our judgments approve, and that we will not submit to arbitrary dictation from any quarter."

This statement had proceeded thus far when it was announced that some of the confidential employees of the company were present. After a short consultation three of the workmen were selected to ask Mr. Nearing to be present, in the hope that a free discussion of the matters at issue might bring about a settlement of the difficulty. In a short time they returned accompanied by Mr. Nearing, when the men requested the deputy commissioner to read their statements to him; but he declined to hear it, and said that as the commissioner had come to ascertain the real facts, that the best course to pursue would be to make such arrangement as would enable both sides to be heard fully, at the same time avowing his willingness to give him any information he might require.

He declined, however, to proceed in a room so crowded as this was, but would meet him (the deputy commissioner) at his (Nearing's) office at any time he would name.

On the part of the workmen it was then proposed that Mr. Nearing should allow the use of the "Good Templar's Hall," where the commissioner should meet both parties, either or both attended by counsel or not as they should severally elect, and that the testimony should be taken under oath, subject to cross-examination. To this Mr. Nearing appeared willing to accede, on condition that the workmen should appoint a committee of two or three, to give the evidence on their behalf, but they objected to that on the ground that as the questions at issue affected all alike, the examination should be open to all who wished to testify on either side.

The conference closed at this point, nothing definite being settled, except that the deputy commissioner should call on Mr. Nearing at his office the next morning at half-past seven o'clock. About nine o'clock in the evening some of the subordinate storekeepers or clerks called on the commissioner and urged him very earnestly not to leave without making an effort to mediate between Mr. Nearing and the men. They said from what they had heard in the afternoon conference, that they were satisfied that the temper of the men was conciliatory, and if the deputy commissioner by remaining in the neighborhood for a week, or even two, could succeed in bringing about an understanding that would avert a long suspension, he would accomplish a good for the business interests of the community that would outweigh in dollars and cents alone the whole cost of the Bureau in a year. The idea of one of these gentlemen was that Mr. Nearing should ask for a meeting of all the managers and principal owners of the several collieries at Blossburg, at which the representatives of the workmen should meet them, together with the deputy commissioner, and try whether a free interchange of opinion, and a mutual desire for conciliation might not bring about a settlement. This idea was so confidently urged by this gentleman, he seemed so sure that Mr. Nearing would acquiesce in such a proposition, that the deputy commissioner believed the suggestion to have been inspired by him. On calling on that gentleman in the morning he was greatly disappointed, however, to find that the idea was entirely new to him, and rather distasteful. It would occupy too much space to report all the conversation in this interview, but we will try to give the more salient points, as they embody Mr. Nearing's statement of the cause and progress of the troubles.

Mr. Nearing stated that he did not believe there were any collieries in the world where so honest, intelligent, industrious, moral and self-respecting a working population had been gathered as in these of Tioga county. As an evidence of which he pointed from the office windows to three unusually

pretty churches for a country village, and said that the workmen had built them all, and creditably sustained them. Besides these, there were three lodges of different orders, one "Odd Fellow," one "Good Templar," the third not remembered; all of which he said were strong and well sustained. The people all showed exemplary anxiety for the advantages of school education for their children. Large numbers of the workmen had been many years in the company's employ, some much longer than he had been, and there were very few whom he would not regret to lose. At the same time, Mr. Nearing's statement showed expressly that in all this town of "Morris Run" there was not so much as a pig pen or the paling of a garden fence that did not belong to the company. That of all this intelligent and worthy population, numbering in the neighborhood of two thousand, there was not a family that held its home on any other tenure than that of tenant at will subject to compulsory removal at ten days' notice. With all their churches, built with their own money, and their lodges and hall, they have not a place in the town or township in which they can meet, except for religious or lodge purposes, without Mr. Nearing's consent being first asked for and obtained. There is not in the town or township a road or path that is a highway for the public; the public roads of all the adjoining townships terminating when they strike the borders of this, so that if any person is found on its roads or streets, who are distasteful to the manager, he can compel him immediately to leave, or arrest him as a trespasser.

Mr. Nearing strenuously denied that the company ever discounted their store script, or consented to its use as money, by changing it for currency on any terms; he also denied having discharged men for dealing elsewhere than at the company's stores, but admitted that it was their custom to promote the patronage of their stores by the workmen, so that they might be kept from going out where they could get access to liquor and indulge in drunkenness. He also denied the truth of the complaint of the workmen that they did not get full weight for the coal they mined. With regard to the collection and disbursement of road taxes on the private roads of the company, he claimed that they acted legally. To the suggestion of the deputy commissioner, that the state of things existing here *as he described them*, was a very great anomaly in the midst of a free country; that when it become generally known, its continuance could hardly be permitted; that the spirit as well as the letter of the laws of the State and nation were violated in thus creating absolute personal government in the midst of a republic. He replied that this was the company's private property. That every man had a right to do what he would with his own. That these were the rules and conditions under which they chose to conduct their business, and that they would not permit any interference from any quarter in their affairs. That the companies had determined that they would not per-

mit any workmen's organizations to exist on their property. That those of the workmen who did not like their rules, were at liberty to move out of their jurisdiction. When the commissioner suggested that inasmuch as the company had not made a pay since that for August work, the men who would elect to leave, might not have the means, and consequently not enjoy quite so much of the liberty he spoke of; he replied—they are not in need of money—the company now hold a large amount of money deposited in the office on loan, in amounts from one to eight hundred dollars. If there was no trouble existing, but the work running in its ordinary way, I could go out any time among our men and borrow for the company a hundred thousand dollars. During this conversation, probably fifty of these workmen came to the office asking for pay and presenting their due bills. To all Mr. Nearing held the same language—you know our conditions, if you are prepared to answer the questions in our notice to the satisfaction of the company, you can go to work and we will pay you one month's wages now, and the remainder as soon as convenient to us; or if you wish to settle up and leave, we will pay you up to date as soon as you leave our houses and bring us the keys. Some of the men protested very strongly against the injustice of this course; some said that they would move away if he would give them one month's pay to enable them to do so; but not one accepted or consented to the conditions imposed as the terms upon which they could remain. One or two persons surrendered their houses and were paid off.

The deputy commissioner did all he could to bring about a compromise; to this end, proposing the scheme of the clerk spoken of before, that Mr. Nearing should ask the owners and all the managers or agents of the collieries to meet the men at Blossburg; feeling assured that such a meeting would result in a settlement. Mr. Nearing asked him if he thought the men could be brought to agree to a settlement without their union, and he replied that he thought not; but from what they had said, and from his own knowledge of the character and effects of this union in the anthracite counties where it had been most successful, he believed the companies would, upon learning that character and those effects, encourage rather than discourage it. Mr. Nearing still persisted in the policy that had been adopted, but invited the commissioner to accompany him to Blossburg, where he was to meet a number of the company's council, and he would like them to hear his views.

Upon this invitation the deputy commissioner accompanied Mr. Nearing to Blossburg. In the course of the conversation that took place there, he felt himself impelled by a sense of the imminence of the suffering and demoralization that must follow the breaking away from wholesome moral and religious influences, the scattering of this large community of workmen and their families must cause, to press upon the gentlemen present,

respectfully, but earnestly, the justice and sound policy, of withdrawing the notices they certainly had no right to issue, and of agreeing with the workmen upon a basis of substantial justice and equity. Mr. Nearing asked him what, in his opinion, would constitute such an agreement? To which he replied by making the following proposition, which was afterward written out at the request of the workmen, and adopted by them as their proposal to their employers, and so published.

1st. The companies to withdraw the objectionable notices, not as a concession to the men, but distinctly because they had no right to put them up; and for the same reason they shall cease to obstruct the workmen's organization.

2d. The companies to agree that no man shall be discharged, or put to disadvantage in his work, because of any thing he had lawfully done in promoting the organization of the union.

3d. The men to withdraw all charges of grievances that have heretofore been made; and the two parties mutually take a new departure; all grievances, and differences of the past to be regarded as though they had never occurred.

4th. On the part of the members of the union, they want it to be clearly understood, that they have no right to force the inclination of any man in the matter of joining the union. That such men have the same right to work, and the companies to employ them, as those who belong to the union. That members of the union are bound to see that such persons are not molested in the work or elsewhere because of their not being union men. And that workmen have no right to commit any acts that interfere with the free and exclusive, lawful and just management of the collieries, and their business affairs by the companies, and that any such acts should be held to be, and punished as conspiracy.

5th. When any workmen in the future has any complaint to make, or grievance to be redressed, he shall apply first to the foremen or boss, who is immediately over him; whose duty it shall be to give him redress if his complaint is just. If he neglects or refuses to do so, the person aggrieved shall apply to his proper branch, or district association, who shall through the proper committee, inquire as to the reasonableness of the complaint; if they find it trivial, or unreasonable, they shall so report to the branch or district, who shall thereupon require the complainant to proceed with his work quietly and peaceably, or leave it in the same manner for some one else to do. If, however, they find the complaint to be just, they shall apply to the agent or manager; and then it shall be his duty to give them fair hearing, and if he is satisfied with the justness of the demand, give prompt redress.

6th. If, however, the two parties cannot agree, they shall together select some disinterested person, in whom both have confidence, to act as arbitrator, and both shall be bound by his decision, given after full and fair hearing. If they cannot agree upon a person for arbitrator, they shall each select one, and these two shall choose a third, the three constituting a board of arbitration, and the judgment of all, or a majority, shall be binding on both sides.

Mr. Nearing declined to accept this proposition as a basis of settlement, on the ground that the policy of the companies had been fixed; and however he himself might approve it, he had no authority to make any alteration in it. He said, we may have made a mistake, but we must abide by it now.

The deputy commissioner then urged upon him the propriety of calling a general meeting of the stockholders, or owners, and agents of the companies, to consider it. This he also declined, saying that he did not think they would be pleased with such a course; and even if they should, and were to make any settlement with the men, involving the existence of a union among the workmen at their collieries, he could not, consistently with his honor, remain in their service.

The deputy commissioner then asked him to meet him with the men, with counsel to cross-examine, and thus enable him (the commissioner) to get the facts, in the form of sworn evidence, under cross-examination. This the workmen were eager to secure, but he declined to have anything to do with it, and closed the conference by saying: "I must come to the conclusion that we will make no change in our policy, but go on in the course we have marked out."

The deputy commissioner met a large committee, or delegation, of the workmen from Arnot the next morning, (Saturday, Dec. 27,) and received from them the following:

STATEMENT OF THE WORKMEN OF ARNOT.

"Arnot was the first place to begin the organization of the union. What led to it was, that a report as from the office was circulated that there was to be a pay for one month, on Saturday, and that we were to sign an agreement not to ask for any more money until May. A meeting was called at the lower schutes at 7 o'clock in the evening, and at that meeting a resolution was passed to the effect that we should organize a union for mutual support and protection. A committee, consisting of eleven persons, was appointed, and nine out of the eleven were discharged. The discharges were effected in this way. At the pay, when the wives of the committeemen went to the office for their money as usual, their husbands being at work, they received

the usual envelope, but upon opening them, found in them, instead of money, notices to vacate their houses at ten days' notice.

Another committee was appointed to wait upon Mr. Landers, the agent, and ask that he would allow these men to return to their work.

His reply was that they could if they would bind themselves never to join a union or anything of the kind; that no man who belonged to any union should ever work on that mountain.

We then proceeded to organize the union, feeling that it was a necessity to enable us to resist with some effect these arbitrary exactions. Notices similar to those in Morris Run, Fall Brook and Antrim were put up by the company, and all work was suspended.

Our purposes are the same as those expressed by the Morris Run men, we propose no improper or unlawful compulsion with any man or corporation, but only within the lines of our clearly defined legal right, to defend ourselves from unjust exactions and oppressions.

With regard to short weight in the coal we mine, let Mr. T. testify, his own case is a fair presentment of all. "I went to the weigh boss and complained of the weight being short. He said, don't you know there has been one hundred pounds put on a wagon? I asked him what for, and he said for the brakes. The brakes weigh from thirty to thirty-five pounds, and at this time there were not more than about three brakes to every twenty wagons, yet the deduction was made on all. A few days after this I spoke to the superintendent about it, and he said he claimed the right to do what he liked in reference to those things."

We wish to repeat with emphasis, the charge of the Morris Run men, as to the discounting of store scrip at the offices of the companies. It is a notorious fact, known to every one in the community, that this scrip circulates as money in Blossburg and all the region round the collieries at an average discount of about ten per cent.

When informed by the deputy commissioner that Mr. Nearing strenuously denied the charge of discounting this scrip, or changing it all for money; they asserted that it was utterly impossible that he should think so, for the instances in which it had been done were so numerous and notorious that he could not but be cognizant of it. They asserted that it was well known that Mr. Stephen Bowen, the sheriff of Tioga county, had had thousands of dollars of it changed at their offices at a discount of about five per cent. They assured the commissioner that they could and would procure affidavits to prove all their statements that he (Mr. Nearing) had denied.

As a result of this determination, affidavits were prepared and sent to the Bureau where they are now on file. For the reason that there is now a strong hope that the companies will compose their differences with their

workmen, and permit them to return to their work on equitable terms, and that legal proceedings will not be necessary, the names of the affiants are not inserted here, but as a vital part of the history of a struggle that illustrates more fully than anything else can do the extraordinary character of the oppressions that can and do grow up, where the power of money either in corporate or individual hands is unresisted, the substance of these affidavits must be inserted. They are as follows, all sworn and subscribed regularly before a justice of the peace.

1st. I have taken scrip from my customers for goods at Morris Run, in the year 1872, at various times, and had it discounted at the Morris Run office at ninety cents on the dollar.

I have also in the year 1872 received from my customers at Fall Brook scrip of that company, and had it changed at their office at ninety cents on the dollar.

I have also taken scrip from my customers at Arnot, in the years 1871 and 1872, and changed it at Arnot at ninety cents on the dollar.

2d. Is a shoemaker of Blossburg. In the fall of 1871 went to Fall Brook with boots and shoes, made for customers there; was met by superintendent, and told by him that he must not sell them there, or if he did, he (the superintendent) would discharge those who bought them. The superintendent sent a man after him to watch him, and he had to take his goods back again lest his customers should be discharged, and they had to come down to Blossburg to get their goods.

3d. This man lived at Morris Run, and on the 1st of August, 1873, was asked by some of the miners if he would play for them, as they wished to have a "little hop" at the hall. He said he would. When they went there, Mr. Nearing came in and put out the lights and said they could not dance there. Deponent then invited them to come up to the house where he boarded, and they could dance there if they were orderly. They did so. Deponent was about to leave next day and called at the office to settle. He was told that the house agent must examine the house before they would pay him. He went to the agent who examined the house and pronounced it in good condition. Deponent then went back to the office for his pay, when Mr. Nearing stepped up to him and said he would charge him \$15 for having the dance at his house, as he could not keep a dance-house and not get anything for it. They kept all that was due him—\$10 50, and he never yet received a cent of it, &c.

4th. Is a sample agent; lives at Corning, N. Y.; has traveled *via* the Tioga railroad to Blossburg, Arnot, Fall Brook, Morris Run, &c., for the last five or six years. In June, 1872, went to Morris Run to deliver some orders in glassware that he had taken for the Corning glass and bottle factory. While delivering one lot, just as the woman was paying for them,

Mr. Nearing came in, in a very angry manner and said to her, "if you buy any goods from this scoundrel, I will discharge you and your boys, and they shall never have another days' work in the place; I can sell you goods cheaper than he can." Deponent then left and Nearing followed him, and said: "I strictly forbid you coming here again to sell anything. This is private property and you are a trespasser."

5th. This man was fined three times by Mr. Nearing without legal complaint or trial, and for no legal cause. In May, 1871, \$7; in March, 1872, \$5; in July, 1872, \$20, and to avoid the last fine he left the work.

6th. This man changed at the Morris Run store \$2 50, for which he was charged ten cents on the dollar, he had sold potatoes for the scrip.

7th. This man is also a farmer. On June 9, 1873, he went to Morris Run with potatoes and butter to deliver to a customer who had ordered them on the second of the month, before delivering the goods he asked permission of the overseer of the market, and he granted it. On his return he met Nearing, who told him he should not come any more, which he repeated several times, and finally said if he would pay a fine of ten dollars he could come again, which deponent refused, while Nearing was talking the woman came out to explain the matter, and Nearing turned to her and said she should tell her husband when he came from the mines, he could not go back, but should come to the office, as he did not want him to buy butter of any peddlers.

8th. This is also a farmer, who went to Morris Run and in the same manner, was forbidden to sell his pork, eggs, butter, &c., by the superintendent, who hitched a team to his wagon and hauled it away from the market, and ordered him to leave, and threatened the people who were buying of him with discharge.

9th. This man swears that in June or July, 1873, his wife had bought a piece of pork from a farmer and one of the bosses told her she must put it back in the wagon or her husband would be discharged. And further, that in the evening Mr. Nearing told him (deponent) that any man who could not comply with the rules here, he would discharge as he did not want any of these damned peddlers to come here.

10th. This is also a farmer selling butter, mutton and cheese, who was ordered to leave by Mr. Nearing, who said he would discharge the first person who bought any thing of him. And further, deponent was selling his cheese at 14 cents per pound, while they were charging 17 cents in the store for it.

11th. The man swears that he was directed by Mr. Nearing to follow a tin peddler and take the names of all that bought of him, for he would discharge them. Deponent was at the time in the employ of the company. Afterward, he was selling sewing machines and Nearing ordered him away, and said he would discharge any one who bought of him.

12th. This man is a butcher, and went to Arnot to sell meat, and while a woman was buying of him a man came up and ordered him to leave, saying it was the superintendent's order, and threatened the woman with the discharge of her husband.

13th. Also a farmer. Went to Morris Run to sell produce. After selling at the usual place he proceeded to deliver to his customers, but was intercepted by Mr. Nearing and ordered not to come again. He would not allow him to deliver goods after they were sold. Nearing further said: "You think this is a free country, but you will find out that it aint."

14th. This man is a peddler. Went to Arnot to sell goods in August, 1873, and was ordered by Mr. Landers, the superintendent, to leave. Landers also said he would discharge any man who bought of him, and would throw his pack in the river if he ever came there again.

15th. This man is a miner, and was told December, 1871, by the boss, that he should go to the office to see Mr. Nearing on special business. When he went home, his wife went down to the office, and Mr. Nearing asked her if she had not been dealing in Blossburg. She replied that she had bought some feed and sugar there. Mr. Nearing said he had seen a team from Bloss at her house with provisions, and if she would buy there her husband must stop work, as he had a store and kept such things to sell.

16th. Is an affidavit of two men who had a contract to drive a certain number of yards at a fixed price per yard, in the colliery at Antrim. While fulfilling their contract, the company required them to pledge themselves not to join any miners' union, and, upon their refusal, closed the work against them, and would not permit them to finish their contract.

17th. Is a sworn certificate of a man who says he was doing business in Arnot, Tioga county, Pa.; that from and after February 9, 1871, he was in the habit of depositing scrip (or store currency) in the Bloss coal mining and railroad company's office, at Arnot, from time to time; that he drew from the office, from time to time, money of a national issue; that on the 20th September, 1871, he paid to them \$173 64 as discount for exchanging their scrip for money.

18th. Lived in Arnot, and in February or March, 1870, went to Mr. Landers, the superintendent, and told him he had a very sick child and wanted a little money to get medicine for him. Mr. Landers said he could not give it to him, but he would give him an order on the store agent, and if he explained it to him he would do it for him. Deponent then went to the store agent, Higgins, and stated the case to him, and he said he did not often do that kind of thing, but he would do it for him. Higgins then took the order Landers had given him, deponent, (which was for five dol-

lars,) and handed him in return four dollars and fifty cents, saying that he would have to charge him ten per cent. discount.

19th. Says he is a pedler. Went to Arnot on the 22d August, 1873, to sell some goods. My goods were dry goods, jewelry and Yankee notions. As I was getting off the cars Mr. Landers met me and said, "You must go back; you can't peddle here." I told him I had a license. He replied, he did not care whether I had a license or not, I could not peddle there; that if I came back again he would take my pack and burn it, or throw it into the river. He further said he would send a man after me, and if I sold anything he would discharge those who bought of me.

20th, 21st, 22d and 23d. Are all affidavits, testifying to the illegal and arbitrary levying of fines and taxes, and their collection and retention in the offices of the companies at Morris Run and Fall Brook.

Upon his return to Harrisburg, the acting deputy commissioner made a report, embodying the foregoing statement, and, under the direction of the Chief of the Bureau, laid it before the Governor, who called the attention of the Attorney General to the matter, that it might be determined whether any means existed through which the State authorities could interfere to put a stop to proceedings and practices so utterly at variance with the spirit of our public policy. While this question was pending, the following letter was received:

ELMIRA, N. Y., *January 9, 1874.*

Thos. J. Bigham, Esq.:

DEAR SIR:—I learn that one of your clerks, Mr. Tomlinson, has paid a visit to the Fall Brook mines. As he did not call on the superintendent of the mines, and only heard one side of the case, I hope nothing will be published in your annual report in regard to the difficulties at our mines in the Blossburg region without giving us a hearing.

I sent you a few days ago, on a card, the statistics of the production of coal in Tioga, Lycoming and Bradford counties for 1873.

Yours respectfully,

JAMES MACFARLANE,
General Salesman.

This letter was handed to the clerk mentioned in it to be answered. The answer is as follows:

BUREAU OF STATISTICS,
HARRISBURG, *January 10, 1874.* }

JAMES MACFARLANE, ESQ., *General Salesman:*

DEAR SIR:—HON. T. J. Bigham has handed me your letter, dated yesterday. In reply I would say that the reason I did not call on your superintendent at Fall Brook was, that I was informed that he was away. I desired to see the cashier, but did not go to his house because I was told he

had sickness in his family, and I hesitated to intrude upon him; besides, the people at the hotel assured me that he generally came there in the course of the morning. I waited as long as the time at my disposal would admit, and about noon walked over to Morris Run. I may properly say here that I had no reason to suppose Mr. Knight especially desired to see me, inasmuch as he had declined to fill in the wages in the blanks I had sent him, but advised that I should go myself, or send some one to inquire in the region round about.

I should also say in justice to him and to his men with whom I met, that they spoke of him and of all his subordinates in the kindest and most respectful terms. Your apparent implication, that I made an inquiry and heard but one side, is a *real* and *great* (perhaps unintended) injustice to me.

I was at Fall Brook from noon on the 24th to noon on the 25th. There was considerable eagerness on the part of the workmen, to make their statement of the case, and with my limited time I would hardly lie idle waiting for the return of Mr. Knight, when I had no reason to feel assured that he would promote my object. I spent Friday with Mr. Nearing, at Morris Run and Blossburg, and did all that my ability (such as it is) and my earnest desire to promote concillation, and avert catastrophe, enabled me to do, to induce him to call a general meeting of the agents and owners of the mines (as the men requested me to do) in the hope that a dispassionate interchange of views between them and the men might bring about a settlement. This he declined. I then urged him to meet myself and the workmen, for the purpose of enabling me to take evidence of both parties under cross-examination, both or either to be attended by counsel, or not, as they might elect. This he also refused, during our interview, by saying, that he must come to the conclusion that the companies would not change their policy, but things must go on as they were. Under these circumstances, in the face of the statements made by the men, and Mr. Nearings refusal to give me the means of testing their accuracy; I must be permitted to say that your demand that nothing should be published until your side has been heard, is, to say the least, unreasonable. What assurance is there that acquiescence in your demand would not amount to an indefinite postponement of the whole subject? The facts will be published as we find them. Of course, any thing the companies desire to present will be added if it comes in time for the printer—or if they desire it, and will fix a time, Mr. Bigham will make arrangements to give them an impartial hearing, by taking testimony under cross-examination.

In the mean time, I would (if I might) plead with you in the name of humanity, to postpone the expulsion of these people from their houses

until every effort is exhausted to bring about a merciful solution of the difficulty.

Very respectfully,

JOHN TOMLINSON.

The Chief of the Bureau at the same time wrote the following letter to Mr. Macfarlane:

BUREAU OF STATISTICS, }
HARRISBURG, Jan. 10, 1874.

JAMES MACFARLANE, ESQ.,

DEAR SIR:—Mr. Tomlinson has written you about Blossburg mining matters. A considerable number of papers were yesterday put in the hands of the Attorney General, to see if some legal remedy could not be devised to stop the coal companies of your region from turning out men, women and children, in mid-winter, and simply because *they will not sign an agreement never to join a trades union*. I care not what the law of the case may be decided to be; these coal companies are madmen.

If you have any influence with them, tell them to abandon this matter at once. If the miners are willing to work, let them work. When they actually strike will be time enough to turn them out.

I claim no legal right to control them in the management of their work, but their proceedings, as reported here, cuts them off from all sympathy.

The Governor, the Attorney General and my Bureau, have had sworn affidavits sent here, that present their proceedings in a light that all good citizens must reprobate. If possible, do not let us have the military called out to suppress riots in these coal mines. I write warmly, because a crisis is likely to be reached in a few days.

I remain truly yours,

T. J. BIGHAM.

The following reply was received:

ELMIRA, N. Y., Jan. 12, 1874.

THOS. J. BIGHAM, ESQ.:

DEAR SIR:—Your letter of the 10th, and Mr. Tomlinson's, have been received.

My duties are confined to the finding a market for our coal, and I have no control of affairs at the mines.

I will see some of the proprietors to-morrow, and I have no doubt they will cause a reply to be sent to these letters.

Yours respectfully,

JAMES MACFARLANE,
General Salesman.

On the 15th January Mr. Macfarlane was in Harrisburg, and submitted the following answer to the statements of the workmen, and the affidavits filed in the Bureau :

ELMIRA, N. Y., *January 15, 1874.*

THOMAS J. BIGHAM, ESQ., *Commissioner of Statistics, &c.:*

SIR:—I have read the report made to you by Mr. Tomlinson, your deputy, in regard to the difficulties existing between the coal companies in the Blossburg region and their miners, and without going over the whole ground, I beg leave to make a brief statement in reply. The coal of this district is produced at three large collieries situated within a few miles of each other near Blossburg, and a fourth further west, south of Wellsboro', all of them located in the forests, in isolated places, several miles from any other village or settlement. Each of the coal companies owns several thousand acres of coal land covered with timber. All the dwellings built by them for the use of their men also belong to the companies. The present strike was not the result of any of the numerous grievances which they have complained of to Mr. Tomlinson, but from the causes which I will proceed to state.

In the years 1863 and 1864 an association was formed by our men similar to that which has existed for several years in the anthracite regions, and commonly called a "Miners' Union." The coal companies paid no attention to it in its incipient stages until it attained its full strength by gaining to its membership every miner, mule-driver, mechanic and laborer in their employment. It then showed its real character and purposes by taking out of the hands of the coal companies all control of their business. The men were moved as one man by the power of a secret oath-bound society, ruled by a very few of the worst of its members. If any act whatever was done by any of the company's officers distasteful to this association or any of its influential members, every man stopped work at the word of command, and all business operations ceased until the wishes of the men, however unjust or unreasonable, were gratified. No man could be employed by the company who was not a member and approved by the association. The number of men to be employed in the mines, the hours of labor, the quantity of coal to be mined by each man, the wages to be paid to every employee, and every other detail of the business, too numerous to mention, were dictated by the men in the most arbitrary manner. The coal companies were obliged to pay the most extravagant rates of wages, and to submit, in every branch of their business, to a tyranny of the most oppressive character from this association.

After this state of things became intolerable, these coal companies determined to free themselves from this yoke, and to assert their right to employ such men as they might think proper. They succeeded in doing

so between the months of January and June, 1865, by discharging all their men and employing others, or those only of their old men who would renounce their membership of this society. Many of them did so, as they had found it to be the worst enemy of the laboring man.

These coal companies have now managed their own business in their own way for the last nine years, during which no miners' union has existed in the region, and the business of mining coal has been carried on until it has now reached almost one million of tons per annum. It has not been interrupted by strikes or other causes. Winter and summer good work at good wages has been furnished, with cash payments on the Saturday nearest the 20th for all work done during the previous month, the wages being two or three times that paid for other labor. They have not been deprived of their natural rights to act together in all things relating to their own interests. On questions of wages they have always had union enough, being then naturally and instinctively drawn together. They have exacted and received as good wages as are paid elsewhere. There is now no question of wages pending. They admit that we pay them honestly and regularly in money, fair wages for a fair day's work.

The present strike originated at Arnot, at the mines of the Blossburg coal company, under the following circumstances: The men were paid a month's wages on Saturday, November 22d, last. On the following Monday a meeting was held by the miners, in a public manner, at the company's coal shutes, at which it was determined to organize a miners' union, similar to that in the anthracite region. The foreman at once discharged eight of the most prominent men engaged in this proceeding. All the miners at once struck or quit work until these men were re-instated, and since then only one man has worked in those mines.

The president of the company visited the mines on the next day, called the men—some 200 or more—together, and asked what were their grievances. They complained of short weights. He assured them if there was anything wrong it should be rectified; that it was their intention to give them honest and true weights, and any guarantee or safeguards they wanted should be given them. They then said they wanted a union and would have it. He replied that then they must part company; that the Blossburg coal company would not work under a union; that they would pay them up and let them go elsewhere, rather than submit to what had been suffered in the region in 1864.

The men remained firm in their determination, and under their influence many of the miners at the Morris Run, Fall Brook and Antrim mines also joined them in forming a union.

Warned by the experience of the past, remembering the trouble both to us and to the men during the dark days of the former union, these compa-

nies, with one accord, took the decisive step of giving notice that they would not retain in their employment any man who was a member of the proposed Miners' union of Tioga county. All they required of their men was that they should say whether they were members or proposed to become such while they worked for this company. All the men who joined the union were paid their wages in money on their vacating our houses. Notices were served on them to quit their houses agreeably to their leases, and in a number of cases judgments have been rendered in favor of the companies, on proceedings taken under the landlord and tenant acts, but in no case has any family been dispossessed by process of law by any of these companies. In all cases they have vacated the houses without a warrant being issued. Some of the men have gone back to Scotland, where mining wages are now high, others to other mining districts, but most of them are living in temporary quarters in and near Blossburg and among the farmers of Tioga county, waiting until the dissolution of the cruel bonds of the Miners' union will allow them to return to the comfortable houses from which the evil council of bad advisers has driven them. The force of public opinion among this class of people is all-controlling. A few determined leaders can lead them into and keep them in an association of this kind against their own wishes and better judgment.

Meantime the coal companies are employing other men as fast as they can get them. One of the mines has one hundred at work, another ninety odd, another thirty-five. This is the state of affairs at the present time, and I submit this plain statement of the circumstances without further comment. The list of grievances recited by the men to Mr. Tomlinson is an after thought and they were not the cause of the strike. The issuing of the store currency mentioned by the men to Mr. Tomlinson, I think is probably illegal; but it should be distinctly understood that it is not issued to pay the men their wages, which is always done in money. If a miner wishes to anticipate his wages for the current month, before pay day; he can buy store goods on that account. He gets an order on the store at the office for any sum he names, if his account is good for it. If he does not buy goods to the full amount, the balance or change is paid him in this store currency which he, or any other party, can use in buying goods at the store. If any party chooses to use this currency for any other purpose, and it has been bought and sold for cash on a small scale at a discount of 10 per cent., as is charged, the party who first obtained it did so voluntarily, choosing rather to do so than wait till pay day and get his pay in money.

It is issued for the convenience of the men, as without it they would have to buy goods, perhaps, that they did not want, so as to make up the exact amount of their orders or pay cash for their goods.

The union now formed is essentially the same as that of 1865. The constitution of the National Miners' Association, article seven, provides for regulating the hours of labor, the amount of coal produced and a change in the location of a part of their men. The printed copies of the by-laws in circulation among our men provides, that "no foreman shall employ any man who is not a member of the association." Other clauses indicate similar intentions to take the control of our business.

There are numerous other matters of minor importance mentioned in Mr. Tomlinson's report in regard to the treatment of our men, which I do not think it necessary to refer to. This class of men are not so helpless as to call for any interference on the part of any public officer of the State. In the great multitude of men, women and children, who live by labor in this great State, there is far more work than your Bureau can do to redress the real wrongs, and improve the condition of laboring people without troubling yourself about Mr. Nearing's manners, as a well behaved gentleman, and many of the other of the trifling complaints made by our men.

Our coal companies claim that they have not violated any law, calling for interference by the officers of the State at Harrisburg. Our own domestic tribunals are sufficient for our cases. We have not ill-treated our men, we are not hard-hearted land-lords, and we feel that we are justified in our proceedings in regard to this strike of our men to our own consciences and before God and man.

JAMES MACFARLANE,

General Agent for the Blossburg Coal Companies.

On the 31st January a delegation of the workmen from Tioga county had an interview with the Governor and Attorney General, at which they presented a petition signed by 2,577 citizens of that county, among them large numbers of the most prominent men (business and otherwise) of the county, praying the State authorities should interfere to secure the enforcement of the laws and the protection of these people from these oppressions. Upon examination of the petition, and hearing a statement of the case, the delegates were assured by the Attorney General that whatever it was in their power under the law to do, should be done. The Attorney General, at the same time, advised that they should retain good counsel to consult with him as to the best course to be pursued. Some of their sympathizers at once retained Hon. Wayne MacVeagh of Harrisburg; being resolved that if the companies persisted in their unwarrantable course, to make the case a test to determine where the rights and powers of employers end, and those of workmen begin. As revenge was no part of the *animus* of the struggle on the part of the workmen acting under the advice of their counsel, further proceedings have been delayed in the hope that an amicable and just settle-

ment might obviate the necessity of such a contest. At this time, February 28, the Bureau is in receipt of advices, that at the Arnot colliery an honorable agreement has been come to, and that the rest are likely to follow in a few days. And it is earnestly hoped that the trouble is over.

CONCLUSIONS AND RECOMMENDATIONS.

In closing our presentation of the condition of labor in the Commonwealth for this year, in its relations to its moral, social and industrial development, we feel painfully the incompleteness of the work and meagreness of the array of facts we have been able to gather, as compared with the greatness of the subject and its importance in its bearing upon the healthy progress of our people.

In our introductory remarks, written in the early summer, the causes of this deficiency were specifically stated, and the experience of nine months of earnest effort has only served to emphasize that statement.

It is believed, however, that what is presented will be found, upon candid perusal, to fill at least the promise, that it should demonstrate the value of such inquiry, made under effective legislation and sufficient means. We have avoided in the work of this year any comparison of the workingman of our State, or of his condition, with those of other countries, because we regard it as of far more consequence that the simple facts should be so stated as to show whether that condition is what it should be under the political conditions existing here, than that comparisons should be made that would only demonstrate that it is better here than in other countries where the influence of our institutions is not felt, and for whose progress, or lack of progress, neither our institutions nor their administration are responsible.

The conclusions we are impelled to adopt, by the inquiries embodied in the foregoing report, may be summed up as follows:

1st. Our recapitulation table of wage-workers in all industries in the Commonwealth show a grand total of 518,262, or over half a million of persons, who live exclusively upon the proceeds of wages, daily, monthly or yearly.

Of these, the more highly skilled, whom we class in the various occupations as foremen, full time hands, &c., to the number of 29,848, or within a fraction of 6 per cent. of the whole, are quite fully paid, having incomes from \$1,500 down to \$600 per year. These may be said to have reached that stage in progress in which they fill the requirement named by Mr. Blodgett, as "the highest point to which any condition of industrial development can attain," which "brings the productive classes and the intelligent

citizens nearly, if not absolutely together; one that in all essentials makes them the same."

Then we have 171,512, or about 33 per cent. of the whole, who, we have no reason to doubt, are approximating to that condition, their incomes varying from \$850 down to say \$450 per year. It would seem that the only obstacles in the complete immunity of this class from extreme poverty and the debasement that accompanies it, are to be found in those fluctuations of trade produced by speculations, that periodically stop the wheels of production and throw the workmen out of employment.

Then again, we have that larger class of common, or measurably unskilled laborers, reaching 226,220, or 44 per cent. of the whole, whose compensation is entirely inadequate, in the light of our American ideas of sufficiency, to the decent maintenance of the recipient; varying from the \$400 per year, of the most favored, down to the \$250 per year of the less fortunate. Here, if anywhere, lies the danger that threatens the future. If, as is asserted, the proportion of this class to the whole is becoming larger year by year, through the remorseless competitions of trade, that depress to the lowest possible figure the wage of the least needed, because least skilled of the productive classes; if that class (as is rendered certain by this analysis) has already reached the enormous proportion of from one-fourth to one-third of the whole and is increasing; a vast army of underpaid, poverty-stricken, hopeless toilers, whose poverty and hopelessness shuts an impenetrable door against all refining and elevating influences, and opens a wide portal to the admission of ignorance, prejudice, immorality, and every debasing activity; the reflection is surely enough to give the business man and publicist pause, and impel serious inquiry as to the causes that lead to a state of affairs so threatening and so much to be dreaded.

The females, 38,856, or 7 per cent. of the whole, are doubtless in a great measure, as are also the youth, 51,826, or 10 per cent. of the whole, absorbed as a class by the two preceding classes, in the various family relations by which their earnings are made aids in swelling otherwise insufficient incomes.

We conclude, then, upon this point, that while there is every reason to believe that the condition of labor in this Commonwealth is far superior to its condition in most foreign countries, if not in all; yet, it is not such as the hopes and aspirations of the people, or the principles and policy of American civilization, require.

2d. The depression of labor is not being submitted to without resistance. A wide-spread and intense agitation is in progress, and has been for years, growing in intensity from day to day; too frequently pressed with the indiscretion and violence of passion and prejudice, born of ignorance; some-

times the plaything of the selfish and conscienceless demagogue; but far more frequently, particularly of late years, directed by a discretion, moderation and cool tenacity of purpose that shows the movement to be the offspring of educated intelligence and thorough honesty of intentions.

These movements of the working classes are manifestly the outgrowth of that higher general intelligence, attained by the masses of the people through the instrumentality of the public school, the lecture platform, the press and the pulpit. At no time in history have the efforts of broad, catholic, christian philanthropy been so persistently exerted, and with such marked results, even amid the din and turmoil of their tremendous industrial activities, as in the past twelve years; and if from their influence a keener intelligence, higher self-respect and stronger self-reliance distinguishes the mass of the workers, and leads them to take their places among the thinkers, and writers, and speakers, whose discussions are to shape the political and social future, we may be sure that it threatens no danger that the good man may shrink from, no commotion that the order loving need fear, but promises a gradual, peaceful, but inevitable adjustment of social and monetary conditions, that will conform the body politic to the needs of an intelligent and progressive people. We believe this, because it is only an ignorant and debased people that can be held in content under political, social or monetary disabilities or injustices. Were it to be held as desirable that these agitations should cease, the invitation to equal citizenship, the public school and the free press must be removed; and it is a very grave question, whether these instrumentalities have not pushed our progress already too far in this direction, for peaceful reaction to be possible, however it might be desired.

We believe, thoroughly, with Mr. Blodgett "that the long existing and apparently insuperable antagonisms between labor and capital, are founded in gross mistakes and erroneous systems," and that the active discussion, intelligent inquiry and resolution that distinguishes what is sometimes deprecated as the agitation of the labor question, will, in good time, bring harmonious order out of the discordant chaos of to-day, by securing to labor its just reward of plenty and security, without humiliating capital, its handmaid, or depriving it of any just power or franchise.

3d. The characteristics of virtue, charity, or honor, are not confined to either side; nor are all selfishness, rapacity, ignorance and blind unreasoning prejudice, the characteristics of either side exclusively. In truth, all qualities inherent in men, whether good or bad, are quite evenly distributed among those of every class and pursuit. It would, therefore, be unreasonable to suppose, that either side would be always right or always wrong. But inasmuch as the whole community are immediately interested in the uninterrupted progress of trade and production, as no industrial es-

establishment can go into contests such as so frequently occur, without imposing a burden of loss upon every interest within the sphere of their business influence; and as the losses to the general public are immeasurably greater from these causes than from all the violations of good order that are made crimes by the law; there can be no good reason why the State through a Bureau like this, may not properly interfere, to soften asperities by conciliation; or compel the practice of justice by that most effective, though least oppressive of all measures, authoritative inquiry and publication of facts. The cases would be rare indeed, in which the violent antagonisms born of a struggle for improper or unjust mastership on either side, would not yield to the certainty of arraignment at the bar of public opinion, by the publication of authoritatively ascertained facts. This report contains a record that speaks more effectively than volumes of argument addressed to this point, in the fact that through the interposition of the Bureau, a lock-out has been broken, that threatened greater loss to the community than the whole cost of its administration for ten years, if provided on the most liberal scale.

There is every reason to believe that if we had been clothed with power to subpoena witnesses and compel answers, this difficulty could have been settled in the first two weeks of its existence, with the saving of thousands of dollars to the proprietors, of an equal amount to the general public, and the prevention of untold suffering and demoralization in several hundred families.

It is, therefore, recommended that the Bureau be clothed with power to investigate the causes of strikes and lock-outs, and for this purpose to subpoena witnesses and take evidence under cross-examination, with power also to compel answers.

It is also recommended that the provisions of the act of 1871, authorizing the collection of mineral statistics by the Auditor General be transferred to this Bureau, and extended to include labor statistics.

The interest that has been excited by the circumstance above alluded to, and others of like character, have opened the way to much better facilities for obtaining information than we possessed this year or expected for the next. We have every reason, therefore, to hope that our next report will be much fuller, and either corroborate the conclusions we have reached in this, or correct our errors.

APPENDIX.

APPENDIX.

EXTRACTS FROM EVIDENCE IN COAL INVESTIGATION.

Testimony of Mr. Sharpe before the Senate Judiciary Committee. Leg. Doc. 1871, page 1656. Number of men employed by Sharpe, Weiss & Co., at Council Ridge colliery, in the month of January, 1871, at the time the colliery was suspended by order of the Workingmen's Benevolent Association, with the rate of wages:

INSIDE OF THE MINES.

	Per week.
78 miners at contract work, (by the ton or yard,).....	-----
5 miners at grading slope after contract was done.....	\$18 50
1 miner .....do.....do.....do.....do.....	18 00
2 miners, ordinary,.....basis, \$16 00.....	17 04
41 miners' laborers.....do.. 13 20.....	14 00
7 miners' laborers, extra hands.....	15 00
1 carpenter on repairs, &c.....basis, 18 00.....	19 14
4 carpenters and helpers.....do.. 16 00.....	17 04
1 driver boss.....do.. 15 00.....	15 60
23 drivers and company laborers .....do.. 13 00.....	<u>13 86</u>

163

3 boys (drivers).....	12 78
4 do....do	10 72
3 boys, doors, oiling cars, &c.....	8 81
5 do.....do.....do.....	<u>6 93</u>

15

178 hands employed.

OUTSIDE HANDS.

12 mechanics and helpers (average) per day of 10 hours	2 64
15 laborers at	2 10
2 laborers at	2 00
8 laborers at	1 81
14 laborers at	1 68
12 laborers, old men picking slate.....	<u>1 58</u>

63

3 boys picking slate (average).....	1 16
9 do.....do.....do	75
7 do.....do.....do	68
28 do.....do.....do	60
5 do.....do.....do	50
<hr/>	
52	
<hr/>	
115 hands employed.	
<hr/>	

MONTHLY MEN PAID FOR FULL TIME.

	Per month.
17 engineers and firemen (average).....	\$68 82
1 machinist, superintending repairs, &c.....	100 00
6 (men) stable, watchmen, &c., (average).....	56 00
2 ticket bosses.....	
1 carpenter boss.....	
1 outside superintendent.....	
1 inside superintendent.....	
— bookkeeper.....	<hr/>
29	
115 outside.	
178 inside.	
<hr/>	
322	
<hr/>	

About one-fourth of the above are boys and young men under 21 years of age.

Miners at the time of suspension were paid \$1 20 per car, equal to sixty-five cents per ton, where coal was mined with least labor. Where wheelbarrows or hand cars were used, or any difficulty presented in the work, an addition or allowance was made.

In 1869 the Workingmen's Benevolent Association proposed to restrict the production of coal, by allowing a miner and his helper to load <i>twelve tons</i> per day. At that amount as a day's work, when they suspended in January, 1871, and rate per ton 65 cents, which we then paid, a day's work of miner and laborer would be.....		\$7 80
Deduct one day of labor then.....		\$2 33
Deduct a liberal allowance for powder, oil, &c.....		1 20
		<hr/>
		3 53
		<hr/>
Leaves miners net earnings.....		4 27
		<hr/>

At the rate proposed by men for resumption, 85 cents per ton, the day's work of twelve tons would be.....	\$10 20
Deduct one day of laborer then.....	\$2 88
Deduct powder, oil, &c.....	1 20
	<hr/> 4 08
Leaving net earnings of miner.....	<hr/> 6 12

Testimony of Mr. Wm. Kendrick: (Extract.)

(Leg. Doc., 1871, page 1650. Wm. Kendrick re-called by Mr. Lamberton.)

Q. Have you a tabulated statement of the wages of a number of collieries?

A. I have.

Q. Produce it. [Statement produced.] Who prepared that statement?

A. Col. Beath, Secretary of the Anthracite Board of Trade.

Q. From what was it prepared?

A. From affidavits from twenty seven collieries.

Q. Have you those affidavits here?

A. I have.

Q. Where are the collieries located?

A. In Schuylkill and Northumberland counties. I do not know whether there are any from Columbia or not.

Q. From your own knowledge, and from the information derived from these affidavits I want you to state what was the average rate of wages earned per day?

A. When I was examined here last Thursday evening, I made a statement which I wish to correct. I stated that the average rate of wages earned in these twenty-seven collieries, was \$3 62½. I see that it is \$3 48½. These are miners working by contract.

Q. What was it in your own colliery?

A. In my own colliery, for the month of August, 1870, the average was \$2 88; that is, the St. Clair shaft; for the month of September \$2 63; that is the average of the men working by contract; we have no report for October; for the month of November it was \$2 20.

Testimony of Mr. Thomas Waddell: (Extract.)

Q. State whether you have any statement made out of the wages you paid to your men in 1870, and the average?

A. I have a small statement here; the average of miners was about \$5 00 per day.

Q. Look at that statement, and tell me what was the lowest sum made per day by any miner working by contract, and what was the highest.

A. The one working in the most difficult place I had, made \$4 72; the highest was \$5 00 and some odd cents.

* * * * *

Q. What were the average wages of laborers in your colliery for 1870?

A. I do not know.

Q. As near as you can tell?

A. From June 22, 1869, until Dec., 1870.—One laborer made \$1,069 06 for 349 $\frac{3}{4}$ days.

Q. Was he an average laborer in your mines?

A. Yes, sir.

STATEMENT OF EARNINGS AT COLORADO COLLIERY, 1870.

(Leg. Doc., 1871. Page 1731. Extract from evidence of Hon. H. L. Cake.)

MONTHS.	No of hands employed.	Am't earned.	Powder, &c.	Product in tons
January	81	\$3,635 92	\$103 00	.....
February	297	8,880 56	588 06	4,419, 12
March	300	15,852 46	923 04	11, 113, 19
April	273	3,668 96	251 40	1, 011, 02
May	362	16,056 51	944 45	10,757, 14
June	450	26,896 60	1,645 55	18,201, 00
July	409	22,561 16	1,552 12	14,297, 19
August	455	20,599 28	1,562 50	16,065, 16
September	339	5,548 39	392 82	3,605, 01
October	404	18,583 79	1,381 90	14,803, 01
November	348	16,354 74	1,386 80	15,111, 06
December	330	15,501 42	1,242 35	15,394, 12
	4,048	174,139 79	11,962 99	124,781, 02

Total amount paid, \$162,176 80. Average monthly earnings, \$40 06 $\frac{1}{3}$. Average number of men and boys employed per month, 337 $\frac{1}{3}$.

The following are the monthly earnings in the same colliery, of two parties or firms of miners, one at wagon, or breast work, the other yard or gangway work, in the same colliery as above, and taken from the same evidence:

MONTHS WORKED IN 1870.	Reddy & Riley, wagon work....	W. Bracy & Co., gangway.....
February	\$90 75	\$196 58
March	141 65	318 35
April	51 80	30 25
May	157 70	279 36
June	260 45	163 23
July	230 55	105 02
August	145 09	185 57
September	29 52	50 67
October	14 82	215 80
November	87 74	185 38
December	105 81	148 61
	1,315 88	1,878 82

This shows the average monthly earnings of Reddy & Riley to have been \$119 62, for each month worked, or \$109 65 per month for the whole year. Average monthly earnings of each year for months actually worked, \$59 81, or for each month in the year, \$54 82, the yearly earnings of each being \$657 94.

The monthly earnings (average) of W. Bracy & Co., show for the eleven months worked, \$170 80, or \$85 40 each per month; if divided over the full year, \$156 56, or \$78 28, each per month. As yearly earnings of each we have \$939 41. The evidence from which these are taken, however, states that these latter, W. Bracy & Co., paid their laborers out of this sum, how much it does not say. The probabilities, however, are that their real net earnings are not greater than the other firm. In the same statement are several other illustrations, but as the amount paid for labor is not given we do not quote them. When we state that this company is regarded by the workmen in the region as the most liberal in its dealing with its hands, and as it consequently rarely has difficulty, but works steadily, the corroboration these statements, from its books, furnish of the substantial truth and correctness of our exhibit is very satisfactory.

We give in this form a variety of items, and sources of information that we have had occasion to refer to in this report, and which will corroborate some of the conclusions we have come to.

INTERVIEWS WITH OPERATORS, &c.

During the summer, being in Pottsville, we called upon Mr. Wm. Kendrick, the general mining superintendent of the Philadelphia and Reading coal and iron company, who kindly directed one of his clerks to aid us in obtaining from the pay rolls the average earnings of workmen.

The result of an examination of Indian Ridge colliery for the month of April, 1873, was—

Average earnings of miners for the month.....	\$72 72
Do.....inside laborers, do.....	47 50
Do.....outside laborers, do.....	42 40

This month's work was very full, many making 27, 28, and even 29 days.

In an interview with Mr. Thomas, assistant mining superintendent, for the same company; he says the average time made per month, for nine months from April 1st, in each year, will be twenty-two days. The remaining three months of the year, while some work is done, the time made will be very short. For these nine months of 22 days he would put the average earnings of miners at \$75 00 per month. Inside laborers \$43 00; outside laborers \$35 00 per month.

Upon the subject of the effects of the miners' union, he says "the character of the workmen has decidedly improved under its influence. Drunkenness does not exist to an extent sufficient to interfere with business. Collieries are never stopped in consequence of drunkenness among the workmen."

At the time of this visit to Schuylkill, our object was to get the judgment of some of the more experienced operators and superintendents as to the substantial correctness of our classification of the workmen, and estimate of average earnings of contract miners.

Had quite a full interview with Col. D. P. Brown, superintendent of the Philadelphia coal company's collieries.

He thought the classification of the workmen, and the wages estimated, to be about as nearly correct as could be come at, except that in the estimate for full time hands the inside bosses should be put at an average of \$1,200 instead of \$1,000, and the bosses of breakers at \$1,000 instead of \$800, and except, also, that the estimate of two engineers to each colliery is too small; it should be at least three.

Regards the plan adopted, as exhibited in this statement, as very judicious, and the results reached as evincing knowledge of the subject and careful investigation.

Thinks investigation of the subject committed to the Bureau, especially this branch of it, highly important, and that the Legislature should not only provide necessary legislation, but sufficient means to enable the work to be done thoroughly.

Made a careful average from the books of their collieries for the year 1870, and the result showed that he had paid at the three collieries under his charge a general average of \$40 per month to each hand employed, and that the time made was ten months. (This would give \$400 as the actual average annual earnings, and fully corroborates the figures we have given.—BUREAU.)

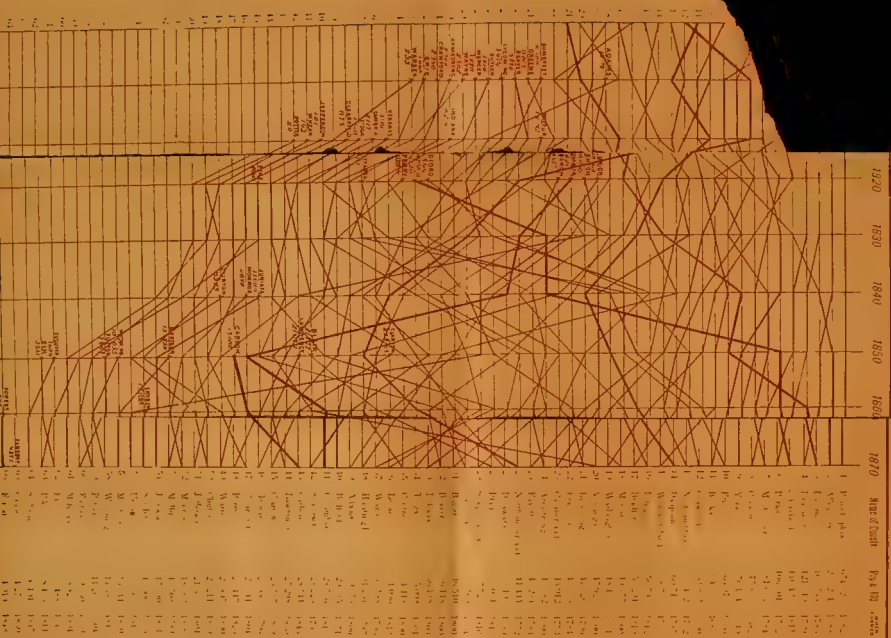
His collieries make rather more than average time in a year, there being none that have excelled them in that respect, except Lee, Grant & Co., who in one year made eleven months.

Col. Brown is of opinion that the effect of the organization of the Workmen's Benevolent Association upon the general business and social condition of the county has been good. The general character of the workmen has improved under it, and differences and disputes are made, by it, more capable of ready and equitable adjustment. Would regard its dissolution as a public misfortune.

Mr. Frank Hendrick, who at the time was largely engaged in making up the pay rolls of the Philadelphia and Reading coal and iron company, upon the Schuylkill tables being submitted to him, referred to several of

CHART

of Pennsylvania for nine decades, showing the status
of the county with regard to Population



the colliery books, and said that he regarded the classification of the hands and other characteristics of the tables as remarkably correct, except that the mining bosses should be put at \$1,200 per year, and the breaker bosses higher than \$800. The books he referred to showed an average rate of \$960 per year.

THE STORY OF A STRIKE, ITS CAUSES AND RESULT.

As showing the character of the difficulties and disagreements often arising between employer and employed, we give a few extracts from our rough notes of an interview with an anthracite operator and his hands, with whom he had a dispute in April and a strike. We met this gentleman in one of the boroughs of Schuylkill county, about two miles from his colliery, and the conversation, beginning with an introduction, progressed substantially as follows:

Introducer. Here is Mr. ———. He will tell you how his men have served him. Mr. ———, this is an agent of the State Bureau of Statistics, who is inquiring into the question of our labor troubles, and I told him you would give him the facts of your troubles with your men this spring, which would go far to explain who is right and who is wrong.

OPERATORS STORY.

Operator. Certainly, I will tell you about it. My workmen have acted very unfairly. I heard at the beginning of January that they purposed asking for an advance. They held a meeting about the end of February, I think Thursday, and passed a resolution, which they handed to the inside boss next day, he refused to receive it, and I never saw it. All I ever knew of it was, the boss informed me, they wanted an advance of 30 cents. a wagon; one dollar a yard on schutes and headings, and the company to load the coal. Having some alterations to make at the pivot, I took no notice of it at the time. The alterations were completed in about two weeks, and I then sought an interview with their committee. Having orders to fill, it was necessary that the work should start, and I compromised with them on an advance of fifteen cents on the wagon, until the next pay, it being a special contract for the month. When the month expired the men refused to recognise the special contract; claimed that it was a basis price, and demanded the addition of the percentage of the month as fixed by the committees on price of coal. I refused to pay it, and the colliery stood idle three weeks and four days, and I had to yield. We are working now at the advance.

Question by deputy commissioner. How much do your contract miners make per day on an average?

Operator. They can make almost any amount they please. Some of them made in that same month over ten dollars, nearly fifteen dollars per

day. If you will get into my buggy, and ride out to the colliery, I will show you the books. (Rode out, and the books were shown.—BUREAU.) There you see are the three men who made this trouble, they are credited with four hundred and twenty-five dollars, and here are their receipts for its payment. Now look here, here you see the colliery only ran eleven days! What do you think of that for earnings, very near fourteen dollars per day.

(Here the operator sent for the inside boss, and told him to relate the circumstances of the strike which he did substantially as the other had done, except that he did not seem to regard the demand of the men as unreasonable; as they had not worked this place since the basis system was adopted, the advance they asked was necessary to bring it up to the general standard.)

Deputy commissioner to boss. What are about the average daily earnings of contract miners at the prices prevailing in your colliery?

Boss. Well, some make less and some more, all the way from \$2 50 to \$3 00, \$3 50 and \$4 00 per day. Some men can make more than others.

Upon the request of the deputy commissioner, the boss said he would try to get the men who had made these large earnings to call at his hotel in the evening.

The operator thinks that the organization of the men has very greatly improved their character and condition in many respects, but complains bitterly of their unreasonably exorbitant demands.

THE WORKMEN'S STORY.

In the evening the boss waited upon the deputy commissioner with the three men above spoken of. This boss, upon being questioned, said he thought there was in the condition of the workmen, before they organized, enough to warrant their attempt to better that condition, preferred to express no opinion as to the benefits and value of the organization.

He introduced Mr. W. F. D., whom he spoke of as one of the best miners, and most industrious and respectable men in the region, and one of the three men engaged in the work in which such great wages were made, as shown by the colliery books.

The following is extracted from notes of his statement:

"There had been a great many ups and downs in wages for several years. A constant conflict was going on and wages gradually falling until it was hardly possible for the majority to make enough to support them. The operators had formed associations throughout the region, and a man being discharged or quitting his work was regarded as on the black list, and often could not get employment at other places. These and other like causes led to a great deal of open and secret violence, and the general condition was wretched indeed. I think the formation of the coal associa-

tions first led the workmen to think of general organization. We found that we would often be kept working at low wages while coal was bringing a high price, the advance coming to our knowledge too late for us to profit by it. Sometimes, when we did learn it, the fear of disturbing the relations we bore to our employers, lest we should be underbid by others and lose our work, together with the dread of being regarded as turbulent and mischievous men, deterred us from asking for advances when we knew the trade would warrant it. The instances in which operators would voluntarily advance wages were so rare as to be very remarkable exceptions to the general rule, though I have heard of it being done. The union has cured all that, and if we do not receive greatly higher wages by it, we always have a voice in the agreement and know why. We no longer suffer from competition among ourselves, or from suspicions of each other."

In answer to a question he said: I would put the wages earned on the average, before the organization, at, for this valley, about as follows:

	Per week.
Miners by contract, yard or wagon.....	\$12 50
Miners by wages.....	11 00
Inside laborers	9 00 and 9 50
Outside laborers.....	7 50

I do not believe, including detentions caused by strikes and accidents, that much over seven months of twenty days each would be averaged over the region in a year. The average time now will be from eight to nine months, probably nearest the latter, as work goes on much more steadily. The wages may be put as follows:

	Per week
Miners by contract, yard or wagon.....	\$15 50
Miners by wages.....	13 00
Inside laborers	11 00
Outside laborers	10 00

Deputy Commissioner. This statement does not agree with information from other sources. Your employer showed me his books this afternoon, and from them I get figures that prove that you three earned in February last at the rate of nearly fourteen dollars per day.

Miner (laughing.) If we made that, I would like to have got it.

Deputy Commissioner. The books show that you did get it; there is \$425 set to the credit of your three names, and your signatures are there as receipts for its payment, while the breaker only worked eleven days; that is very near fourteen dollars per day for each of you. If you did not get it, how do you explain it?

Miner. That it is not a true statement. You should have been told, that we had six miners working with us to whom we paid thirteen dollars per week, and that we worked eighteen days instead of eleven, as the boss here knows. (Here the boss interjected an objection, but the miner having called to his recollection some circumstances of the time, he re-called it, and said it was true, they did work the eighteen days, and had the six men with them all the time.) Now, continued the miner to the deputy commissioner, if you will make up the wages of six men at thirteen dollars per week, and deduct that from what we received, I guess you will find that we made about sixty dollars. I know that was all I had after paying for my share of the powder used. The wages of six men, three weeks, at thirteen dollars per week, will be \$234; that deducted from \$425 will leave \$191; divide that among three of us and we have \$63 66 each for our eighteen days work, and take off the powder used, will leave us about \$60, which, within a few cents, is my recollection of what we had. I suppose you have heard a terrible story about the strike?

Deputy Commissioner. Well, the story, as I have heard it, does not reflect much credit upon the men. You are charged with violating a special contract, which is not honorable. How do you explain it?

Miner. Just as we did the other story; it is not true. This part of the works had been abandoned for some time, and had not been worked since the basis system had been adopted and prices advanced. The alterations made in the mines opened it up again, and the first work done in it was paid for at the old rate, seventy cents per wagon. We demanded that the advance should be put upon it that had been given on the work generally, which was refused. So far from wishing to strike or make trouble were we, that we agreed to take the fifteen cents advance and work it. There was no special contract in the case, or anything said about one month or two. We made the demand and it was conceded. Our prices are always fixed as basis. We make no special contracts in this kind of work. If wages had fallen below the basis that month instead of rising above it, we would have heard nothing about the special contract, but the percentage would have been quietly taken off.

Deputy Commissioner. Can you devise no way to avoid these discreditable and ruinous disputes? Have you no suggestion to make of a means to cure the evil?

Miner. I know of nothing, except for the operators to make up their minds to deal fairly with us. We have tried to introduce the principle of arbitration; but they will only agree to that when it suits them. I am sure it would be as much to their advantage as ours, for sometimes the men make unjust demands, and that would be as good a defence for one as another. I think the law ought to provide some means by which the ob-

servance of justice on either side might be enforced by arbitration or otherwise, and am certain the large majority of the men would rejoice at it, for we only want what is right and fair.

CORRESPONDENCE.

Below will be found two letters from Hon. Richard Williams, late of the State Legislature, and others, in answer to applications of the Bureau for information.

AUDENRIED, *November 4, 1873.*

J. TOMLINSON, Esq.,

DEAR SIR:—Yours received. A contract miner who has a breast or gangway generally employs one man. In some instances two, whose work is to assist him in mining and loading coal. There are instances where contract miners work alone and load their own coal, but it is an exception to the general rule. You are at perfect liberty to use my name.

Yours truly,

RICHARD WILLIAMS.

AUDENRIED, CARBON COUNTY, *Sept. 29, 1873.*

T. J. BIGHAM, Esq.:

DEAR SIR:—Your communication, together with blanks, came to hand. I have been connected with the Miners' Union and chairman of the Board of Arbitration on the miners' side for the last three years. Our wages are arranged as follows: At the Hazleton and Beaver Meadow regions, being composed of the lower portion of Luzerne and part of Carbon county, when coal sells at Elizabethport at five dollars per ton the miner gets 50 cents per ton for cutting and loading the coal, when coal has to be re-handled an allowance of $7\frac{1}{2}$ cents per ton; miners' wages that work by the day, 14 dollars per week, and laborers inside, 11 to 12; outside, 9 to 10. To find out the exact amount made by miners, at contract work, you would have to examine the pay list of every coal mine in the anthracite coal-field; the nearest proximate that I can come to for the year 1873 will be about 70 dollars per month. The average price of coal at Elizabethport for 1873 will be about \$5 50 per ton, which, according to the sliding scale of $12\frac{1}{2}$ per cent., will place wages as follows for 1873.

Miners' wages by the day, \$15 per week; laborers inside, \$12 to \$13; outside, \$11 to \$12; miners by contract, \$70 per month; engineers, \$80; blacksmiths and carpenters around the mines about \$3 per day; breaker boys from 2 to 5 dollars per week, according to age. As regards personal ques-

tions, what amount made in the year, what expended, and what saved, you will never get a satisfactory statement.

The Hazleton and Beaver Meadow regions are the only section of the anthracite coal-field that settle their difficulties by an established board of arbitration since the first of January, 1872, and so far has worked harmonious, and, to a certain extent, satisfactory.

Yours respectfully,

RICHARD WILLIAMS.

NEW HAVEN, CONN., *June 13, 1873.*

SIR:—Your communication of the 7th June is received. The collieries referred to were returned as anthracite by the assistant marshal. Have sent to Washington for the record.

The return of wages in the statistics of manufactures does not include salaries.

When I receive from Washington the names of the proprietors of the collieries returned as anthracite, will communicate further with you.

Your most obedient servant,

FRANCIS J. WALKER.

HON. T. J. BIGHAM, *Commissioner, &c., Harrisburg.*

NEW HAVEN, CONN., *June 21, 1873.*

DEAR SIR:—Referring again to your letter of 7th inst., would say that the report of two anthracite collieries in Allegheny county is the result of a clerical error. The two collieries in Montour county were so returned by the assistant marshal, viz: National iron company and Grove Bros., both at Danville. I shall be pleased to hear from you whether these are, as I apprehend, wrongly returned. The entries to which your letter refers had not, in the multitude of subjects requiring thought and action, struck my eye, or I should have independently investigated it. As it is, I am obliged to you for calling my attention to the subject.

Very respectfully,

FRANCIS J. WALKER.

HON. T. J. BIGHAM, *Commissioner of Statistics, &c.*

A FEW THOUGHTS ON CAPITAL AND LABOR.

BY BENJAMIN BANNAN.

Early in the summer Mr. Bigham addressed a note to the venerable editor of the *Miners' Journal*, requesting a contribution on this subject from his pen. There are few men in the country, whose long and varied experience, and thorough integrity of purpose entitled their thoughts to so much respect as his. The following article from his pen was received in response to Mr. Bigham's note.

"This is a subject of great importance in the present aspect of the business of the country. It is also a question that is very little understood by many of those who are constantly prating about capital being antagonistic to labor. It is true that a conflict is waged between a large portion of the capitalists against the productive industry of the country, which also embraces labor—but such is not the case with all. The capital of the country is divided into two classes, namely:—that which is non-productive and is worked as money in speculating, discounting paper at high rates of interest, and shaving, which, in its use, creates no wealth, and adds but little to the productive industry of the country, but rather tends to retard said industry, and is antagonistic to it. The great contest now waging, not only in this, but many other countries, among the producers and laborers, is caused by this antagonism in which the non-producing monied interest are striving to gain the ascendancy, and particularly by controlling legislation in their interests. At present, the non-producing interests are in the ascendancy, and more money is now made from trading in money; in speculations; in stocks; high dividends of banks; high rates of interest from loan associations, and capital in the hands of unnecessary middle interests, (who also rob the producer and enhance the price to the consumer, thus securing to himself the lion's share of what properly belong to the producer and laborer,) thus crippling and robbing both of their proper reward for their investments in capital and labor in the productive industry of the country. There is scarcely a manufacturer or producer of any kind, who can make as much out of the capital invested in productive industry, as he could with said capital if worked in speculations in stocks, in shaving, or in bank stocks, and loan associations, with their present rates of dividends, &c., consequently there is not half the inducement held out for the investment of capital in productive industry, as there is in the non-productive transactions of the country. This is the reason why our productive industry is in a comparatively languishing condition, and money is rapidly accumulating at the money centres of the country. It is always the pre-

cursor of a languishing productive industry, and for a time interest rules low, simply because those who ought to use the funds, don't want them—and those who would use money at any rate of interest, are not the ones that capitalists care about lending to, under such circumstances.

“There was a time when the capital invested in banks was an important auxiliary to the productive industry of the country—but such is not the case now to one-half the extent it was formerly. Now, brokers and money shavers have the preference in loans made on collateral securities over the business men, and they can obtain large loans when business men can not give the same security, frequently at times when most needed, and this money is used by these brokers and money shavers to discount business paper at the rate of from 1 to 2 per cent. a month; or if a business man obtains discounts at many of the banks, it is on the understanding that he leaves from one-third to one-half lying in the bank, as a basis to extend their business and make large dividends, which subjects the borrower to one-third or one-half more interest to pay for the use of the money he requires to carry on his business. When there is competition, the profits on manufactures in many large establishments do not exceed 5 per cent.; so that the question of shaves in obtaining money frequently renders it impossible to compete with other establishments, when there is a fierce foreign competition, for the want of the necessary banking facilities to discount the paper received in business at the regular rate of interest, and compels submission to the shylocks who are plenty as the middle interests in every community. Our country is in such condition now, and under such circumstances its productive industry must consequently languish, and will continue to languish until Congress applies the proper remedy.

“This is the contest that is now waging in this and other countries between non-productive capital, speculations and shaving on the one side, and productive capital and labor on the other. Every producer and laborer who works in a factory, mine, or on a farm, or in any branch of business that creates wealth are in the same boat, their interests are identical, and they must be united to triumph over the power of non-productive capital which is always aggressive, and must and will triumph over the laborers and producers if they are not united. This is the foundation of all the agitation that characterizes the masses in all producing countries. They know there is something wrong, and where ignorance prevails, the working classes endeavor to wreak their vengeance on the producers who employ them, while they do not understand that it is the power of the non-productive capital, which is robbing the producer as well as the laborer, and takes away his power to pay wages that ought and would be paid, if he were protected from this great and growing influence in our country; and which, if it triumphs in our national councils, will check and greatly embarrass pro-

ductive industry and impoverish the working classes, while at the same time it diminishes its revenue.

"We will now endeavor to show what the policy of this government ought to be in order to throw its influence in favor of capital and labor, which produces wealth and supports the government, and against the ascendancy of non-productive capital.

"We will first point out what are the duties of the government to the people, and the measures that ought to be adopted to remedy the evils complained of. There are many persons who firmly believe that we are governed too much, and the consequence is, that the people look too much to the government for relief, and do not rely sufficiently upon their own exertions. This is true to a certain extent, because there are hundreds and thousands of laws enacted that confer no benefit whatever upon the people at large, which, so far as their general application to the interests of the country are concerned, are of little use, and often prove injurious; but there are certain fundamental principles underlying every form of government which dare not be neglected, but must be fostered by the government in order to secure prosperity to the whole people, and thus enhance the wealth, power and happiness of all classes in the community, from the highest to the most humble citizen.

"There are three principal causes that give non-productive capital power to control and destroy productive industry and depress the rate of wages due to labor; and wherever these causes prevail, capital becomes a curse instead of a blessing to the country and its people. These are high rates of interest, and large dividends made out of non-productive capital worked as money, and not engaged directly in creating and adding wealth to the country, simply because it is a process by which an undue proportion of its wealth is gradually withdrawn from the many into the hands of a few, whose greater abundance is always giving them the advantage over those who have the least; in other words, it is the unerring process of making the rich richer and the poor poorer; the want of adequate protection to our home industry from the cheaper capital, more extensive machinery, and lower rates of labor prevailing in other nations, and a sufficient volume of currency of equal value, properly distributed with an expanding limit as business and wealth expands.

"Our governmental policy from 1846 to 1862 favored the policy that gave non-productive capital the advantage over the productive capital and labor of the country. In 1862, when the rebellion broke out, this policy was changed, protection secured, and our domestic resources were stimulated to such an extent that wealth was created so rapidly that we were enabled to raise money sufficient to carry on and suppress the most gigantic rebellion in the history of the world, and meet all our obligations. It is true

that the currency of the country was largely inflated and prices of everything, including interest, dividends and the prices of labor, were inflated in nearly if not quite a corresponding ratio. The high premium on gold, which prevailed during the rebellion, in which our duties on foreign goods are paid, added this premium to the rates of duties imposed and gave ample protection, even with the high rates of wages and high prices for money; but when the premium on gold commenced declining in a greater ratio than interest, dividends and the wages of labor, the rate of duties on many articles ceased to be adequately protective to our home industry, and it became depressed for the last two years, and will continue in this condition so long as non-productive capital has the advantage, under the present laws. These disadvantages to home labor and our productive industry can only be remedied by wise legislation on the part of Congress, and we will now point out the legislation required.

“The first measure, which is imperative on every government which expects to receive the approbation of its subjects, and command their confidence and support, is to protect by legislation all its subjects in their individual and collective rights from aggression from any source, and also to foster and protect its home industry from the advantages that other nations may possess. It is the home productions that increase its wealth and power, and on which the people must rely for business and the government for support. Its foreign commerce is of secondary consideration, because this will always grow in proportion to the increase of its domestic productions beyond the wants of its own people. Non-producing countries can only have a limited commerce with other nations, and never can flourish or prosper when its home industry is not fostered and protected by the government. Therefore, it is the first duty of every enlightened government to protect its home industry and its labor, in all departments, in manufactures, the products of its mines, and agricultural pursuits, &c., which produce wealth and power and expand the business of the country, and particularly in a comparatively new country, where it is the interest of all classes, embracing eight-tenths of the community, except the holders of non-productive capital, who grow rich on the calamities of the impoverished producers of all classes by taking advantage of these manufacturers, that prices should not descend to the rates prevailing in much older countries, where cheaper capital, extended machinery and starvation wages prevail for the masses. Home protection, therefore, from such hostile interests or inequalities, is the foundation of every nation’s prosperity. To neglect this duty on the part of our law makers, is not only unwise, but absolutely a crime. The unusual high rates of interest engendered during the rebellion, which became a necessity under our financial policy, and also the large dividends derived from banks, railroads, and many other stocks, is also for the bene-

fit of non-producing capital and against labor and home production, and tends to withdraw capital from home industry and loan it on high rates of interest, or invest it in speculation, stock, &c., which create but little wealth, and largely tend to depress and destroy domestic production. This can be remedied by providing for the refunding of the national securities at a lower rate of interest, by gradually descending to the rate that is likely to prevail in our country when its industry is fully developed and wealth becomes more abundant under such a governmental policy. In England the lowest rate of interest is 3 per cent. on consols; on government securities in this country it is not likely that the rate of interest will descend below 4 per cent. for a generation at least, as a permanent rate; therefore, we would provide for refunding the securities now due, and as they fall due, by providing for a new loan of say twelve hundred millions of dollars to run forty years, free of taxation, with coupons attached paying interest at the rate of five per cent. for ten years, $4\frac{1}{2}$ per cent. for ten years and 4 per cent. for the remaining twenty years. Such a loan could be negotiated by the Secretary of the Treasury without the aid of brokers and money shavers at home or abroad, with only expenses of printing the new bonds, and making the exchange without paying any percentage to anybody. All the 5-20's now due, and as fast as they fall due, would be exchanged for this loan, and would fall due before the expiration of the 5 per cent. rate of interest. The 10-40's will also fall due, and will be refunded in this loan or paid off in the meantime. The only securities then left would be the 6's of 1881, and these also can be paid off by the time they fall due out of the sinking fund. This would dispose of the national securities, and the effect would be to lower the rate of interest very materially throughout the country, and bring it down to about the rate paid before the rebellion in times of prosperity. To reduce the rate of interest now below 5 per cent. would be impolitic, and would tend to banish the securities from the country, and the interest also, which would be a great calamity. It would be more to the interest of the people to keep these securities at home, by paying at least one per cent. more interest, and none but unthinking persons, jobbers and the friends of jobbers would advocate a different policy. After all these other securities were either paid off or converted into new securities, we would authorize the Secretary of the Treasury to enter the market and buy up the new loan at the market value with any surplus revenue he may have on hand not required for other purposes, and place them in a sinking fund, the same as he now does. The rates of interest paid on national securities in any country generally controls the rate of interest to a great extent in all other transactions within that country, particularly in the older settled portions. We are aware that it rules much higher on the frontiers of a country like ours, where the settlements are thin and the ex-

penditure of a little money largely increases the value of property, with the present heavy emigration; but in the money centers of the country, the lower the rate of interest, with business in a healthy condition, the greater will be the prosperity of productive industry. We would tax the banks, in addition to their present taxes, from $\frac{1}{2}$ to 1 per cent., or compel them to substitute the new loan in place of the bonds they now hold at 6 per cent.

“Year after year, at the instance of the money changers, traffickers and speculators, great efforts have been made to increase the legal rate of interest in Pennsylvania from 6 to 7 per cent., on the ground that New York pays 7 per cent., and that a great deal of Pennsylvania capital is drawn into New York, and also foreign capital, which tends to give New York a great advantage over Pennsylvania. This argument appears very plausible, but it is not true. Foreign capital does flow into New York, and it will continue to flow there, because the agencies of foreign houses are located there, and some capital from Pennsylvania may be sent there for investment, but our lower rate of interest in discounting paper for the productive interests our State is of ten-fold more advantage to Pennsylvania than all the injury she sustains by a small portion of her capital being directed to another State for investment, where it will draw one per cent. more interest. It is our lower rate of interest that is developing our mineral resources and increasing our manufacturing industry so rapidly that we will soon outstrip New York in everything but her foreign commerce, and even her population before many years pass by. Therefore, any legislator that votes in favor of increasing the rates of interest in this State, is an enemy to labor and the domestic industry of the country, favors the interests of non-productive capital, and is nothing but a tool of the money-shavers.

“The next question is the currency. A good and safe currency is the great auxiliary to insure prosperity in connection with the preceding measures, which would be shorn of one-half their advantages to the community without it. In a commercial country a paper currency is absolutely necessary—it may be made convertible, or like our legal tenders, non-convertible. If made non-convertible, it must have a limit, and the government must stamp a value on it the same as coin, and use it for all purposes that coin is now used. We, however, in accordance with the principles adopted by all other commercial countries, would prefer a convertible paper currency, particularly as we are such large producers of the precious metals. Our national currency made convertible, with a clause requiring the banks to redeem the notes at par in the money centres, and thus keep them of equal value throughout the country, is the best currency now in existence. But to

make it more uniform, and more useful to the community, it must not have an arbitrary limit to be changed periodically by legislation; nor is it wise to have an unlimited issue under a system of free banking as claimed by many, which would prove as destructive as free trade with foreign countries is, to our productive industry. It would be attended with all the periodical fluctuations which have characterized our country heretofore, and which have proved so destructive to investments when paper issues were made too abundant, by the creation of new banks in a time of speculation and high values, with scarcely any limit, which always has and always will result in bringing about a crisis which must end in prostrating business and ruining thousands.

"We therefore propose issuing the currency based on the assessed value of the real and personal property of the country, in the proportion of \$1 in paper currency to \$35 of the assessed value of the real and personal property, and distribute said currency among all the States and Territories in proportion to their assessed wealth. This would remove the objection of an arbitrary limit, and also provide for an expanding limit, just in proportion as wealth and business increases in every part of the country. This would give to the money centres their proportion of currency in proportion to their wealth, (not population, as some rather inexperienced financiers in Congress have proposed, which would be a most unjust distribution so far as commercial interests are concerned,) and no injustice would be done to any section of the country. This must be avoided as far as possible, because now that the old bone of contention is removed in the abolition of slavery, sectional interests may be the next bane to distract the government, if sufficient cause is given by Congress in not awarding equal justice to all sections. This would require the banks to be located in all parts of the country, and not principally in money centres as they now are, and which would be the case almost to the same extent under free banking. It has seemed strange that the Representatives from the West and South have not urged this principle in the issuing and distribution of a national currency, which would give them all they require forever. With this principle of issue and distribution once established, the people never would permit it to be changed, because it is just, and requires no further disturbing legislation to unsettle business afterwards. With such a limit there could be no expansions beyond that point. Charters would be issued to the States in proportion to their wealth as they are applied for. These applications could be registered at the Banking Department at Washington, and issued in rotation from the books. When there is no expansion beyond this point, no contraction can take place, and consequently business and the issue of currency moves on smoothly, increasing as business and population increases, without any disturbing

tendency whatever. Greater security is also given in the investment of capital in building, in manufactures, in the development of the country, which could not be given under any other system, because they know that issues cannot expand beyond this limit. On this principle the distribution could be made to each congressional district, but we presume that in but few instances would such a distribution be required. Every three years the assessments are made, and the annual increase in wealth could be obtained on the average of the last three years.

“The present volume of paper currency from \$1 and upwards, is as follows :

National Bank issue.....	\$300,000,000
Legal tenders, &c.....	356,107,221
3 per cents.....	45,540,000
	<hr/>
Total volume.....	701,947,221
	<hr/>

“From a recent statement published, the assessed value of the real and personal property of the country is given at \$24,500,000,000. The issue of \$1 currency for \$35 of wealth, will give a volume of currency of \$700,000,000, only \$1,947,221 less than the present issue, with this advantage, that the volume would increase annually as business and wealth increased, thus giving it an expanding limit instead of an arbitrary one. There can be no opposition to such an issue of currency and the fairness of its distribution, or at least there ought not to be in any section of the country.

“To equalize the currency we would withdraw twenty to twenty-five millions from the States now having too large a proportion; giving them the option of transferring it to the west or south by the organization of banks there. We would then increase the issue to those States and territories not having their portion, and withdraw the 3 per cent. certificates—then we would commence the withdrawal of legal tenders and fund them in the new loan, if they cannot be cancelled by the Government, as fast as the National Bank currency was issued up to the limit, including the legal tenders outstanding. Just in proportion as the legal tenders are removed, will the banks be better prepared to resume, and in the meantime as the legal tenders diminish we would require the banks to increase their coin reserve in place of legal tenders, preparatory to a resumption. In this manner all the Government issues can be withdrawn gradually, and without causing any trouble, until we have nothing but a National Bank issue of currency. Some object to the interest that would have to be paid on the legal tenders if funded, but the advantages to be derived from their removal, so as to bring about a resumption as speedily as possible, will more than coun-

terbalance all the disadvantages of the increased interest both to the Government and the producing classes and business generally.

“With these three measures fully engrafted on legislation, and faithfully carried out, our productive capital and labor would be protected from the blighting influence of non-productive capital; and hundreds of millions of dollars now used to depress business and development, would then be invested in developing the industry of the country, and would tend to increase its progress in wealth and power to such a degree that all other nations would stand amazed at our rapid progress; and its benefits would not be confined to the limits of our own country, but would react upon foreign countries in equalizing the inequalities that now exist in draining their surplus labor, and thus elevate and ameliorate the condition of hundreds of millions of the toiling masses of the world.”

STATEMENT FROM COAL MINES IN DAUPHIN COUNTY.

We received, too late for use in our analysis for this year, the following statements from the collieries named, through the courtesy of Mayor Joseph Anthony. We append them here just as we receive them:

WILLIAMSTOWN COLLIERY.

Breaker worked in 1870, $281\frac{3}{4}$ days.	
Average number of hands employed.....	414
Number of contractors for year.....	1,990
Average number per month, say.....	166
They earned.....	\$149,383
Outside labor for 11 months.....\$11 per week, for December...	8 80
Inside labor for 11 months..... 12.....do.....do.....	9 60
Miners on wages for 11 months. 14.....do.....do.....	11 20

LYKENS VALLEY COLLIERY

Number of boys employed 42, earnings, each.....	\$200 00
Do.....men employed 281, earnings, each.....	512 00
Do.....contractors included in above men, 38, earnings, each	865 83
Average wages paid per week for 1870—miners.....	13 00
Do.....do.....do.....inside labor.....	11 00
Do.....do.....do.....outside labor.....	10 00
Do.....do.....do.....mechanics.....	13 50
Do.....do.....do.....boys.....	5 00

BIG LICK COLLIERY.

Number of boys employed 44, earnings, each.....	\$180 00
Do....men employed 293, earnings, each.....	504 00
Do....contractors, included in above men, 73, earnings, each,	772 78
Average wages paid per week for 1870—miners.....	13 00
Do.....do.....do.....inside labor.....	11 00
Do.....do.....do.....outside labor.....	10 00
Do.....do.....do.....mechanics.....	14 00
Do.....do.....do.....boys.....	5 50

CONSTITUTION OF THE NATIONAL MINERS' ASSOCIATION.

To illustrate the ideas held by the miners of coal as to what their rights and needs are, and the methods by which they are operating to carry out their purposes, we herewith give a copy of the Constitution of the National Association now in process of formation.

PREAMBLE.

WHEREAS, There are now a number of local and State unions among our miners throughout the country; and,

Whereas, It is indispensably necessary for the government of said unions, that a National association should be established; and,

Whereas, Such an organization has been established, the following Constitution is submitted for its government:

"In union there is strength," and in knowledge of union there is power. In a union embracing in its formation all our different branches and lodges, and every miner in the entire country, founded upon a basis as broad as the land in which we live lies our only hope. Single handed we can do nothing, but united there is no power of wrong we can not openly defy. Our prayer is that miners and underground workers generally, who have not already made a movement in that direction, will be stimulated to action, and organize lodges and branches in the different places where they may reside, connecting themselves immediately with the Miners' National Association, and thereby enable us to go hand and hand together, for their own mutual benefit and happiness.

CONSTITUTION.

ARTICLE I.

NAME OF ASSOCIATION.

This society shall be known as "The Miners' National Association of the United States of America."

ARTICLE II.

OBJECTS.

1. The objects of the society shall be to promote the interests of the miners morally, socially and financially; for the protection of their health and lives; to spread general intelligence among them; to remove, as far as possible, the cause for all strikes, and adopt wherever or whenever it is practicable, the principle of arbitration; to urge upon all miners the necessity of becoming citizens of the United States of America, that we may secure by the use of the ballot, the services of men friendly to labor both in our State and national councils; to create a fund for the support of the members of this association, as described in the constitution and by-laws of the association.

2. To obtain legislative enactments for the more efficient management of mines, whereby the lives and health of miners may be better preserved.

3. To shorten the hours of labor in the mines.

4. To protect all branches and members, when unjustly dealt with by their employers.

5. To secure the true weight of the production of the miners' material at the mine, thus giving to them and the operators their legitimate dues.

6. To sue for compensation, when it is proven to the satisfaction of the association that the negligence of the employers has been the cause of a member's death.

7. To provide a weekly allowance for members when out of employment, when resisting any unjust demands.

8. To assist all similar associations which have the same object in view, to wit: Mutual protection of members, and the protection of labor against capital.

ARTICLE III.

MEMBERSHIP.

This association shall consist of all men who are employed in and around the mines of the United States, who will subscribe to the constitution and by-laws; be governed by them in all their parts, conforming to the principle on which they are based, and submit to the general laws of the association; paying as an entrance-fee, ten cents and thirty cents dues per quarter every month thereafter.

ARTICLE IV.

EXECUTIVE BOARD.

The executive power of this association shall be composed of a general president and one vice president, to be drawn one from each State represented in the association, a general secretary and a treasurer, and shall be known as the Executive Board of the Miners' National Association of the United States of America.

APPENDIX.

ARTICLE V.

OF THE EXECUTIVE OFFICERS.

The executive officers of this association shall be elected annually in the following manner: The annual convention representing the entire members of the association, shall place in nomination, men selected from themselves, and upon any one delegate receiving a majority of the whole votes cast for any office, be declared duly elected. The vote for executive officers shall in all cases be by ballot.

ARTICLE VI.

DUTIES OF THE EXECUTIVE.

It shall be the duty of the president of the executive board to preside at all meetings of the board at which he may be present; to preserve order and cause the constitution and by-laws to be strictly observed by all the different officers and subordinate branches of this association. His decision shall be final in all cases not provided for in the constitution and by-laws. He shall have a casting vote on all questions arising in the board. He shall not be entitled to participate in any discussion while in the chair, excepting in committee of the whole, or upon questions of order. He shall sign all orders drawn upon the treasurer of the board, and all documents that may require his signature. He shall fill all official vacancies of the executive board, not otherwise provided for, until the next annual meeting; shall appoint all committees not specified in the constitution and by-laws, and shall have power to grant charters to subordinate lodges and branches. He shall, with the advice of the executive board, or a majority thereof, have power, in time of recess of the board, to suspend either the general secretary or the treasurer for refusing, neglecting or incapacity to perform their duties. He shall exercise a general supervisory care of the State executive boards, State officers, State lodges and the general interests of the association. He shall sign all the minutes of meetings over which he presides, and shall receive for his services the sum of \$1,200 per annum, to be paid monthly.

2. The vice president shall preside in the absence of the president, and, in case of his death, resignation or inability to perform his duties, they shall devolve on the vice president, who shall continue in this performance until his successor shall have been appointed and installed in office, or the president be able to resume his official duties. In the absence of both of these officers the board shall appoint a president, *pro tem*.

3. The secretary shall keep a just and true record of all proceedings of the executive board at each of their sessions, and transmit to each State board, district lodge or branch, copies of the same. He shall have charge of all books, papers or other property of the board, except the books and

papers of the treasurer, and shall deliver to his successor or any person authorized to receive the same, all books, papers or other property belonging to his office, when required by the board. He shall notify, officially, all State executive boards, and other branches and lodges of special sessions, carry on all necessary correspondence, collect all moneys from the branch lodges and pay them over to the treasurer, and take his receipt for the same. He shall attest all bills, drafts and other papers of the board. In case it be necessary to suspend lodges or branches for any cause, it shall be his duty to notify them to that effect, stating the reason for such suspension. For the faithful performance of his duties, he shall give bonds, with approved security, in the sum of \$5,000, which may be increased from time to time as the board may direct. He shall receive for his services the sum of \$1,200, payable monthly.

4. The treasurer shall receive from the secretary all moneys collected by him, giving his receipt for the same. He shall pay all orders drawn and attested by the secretary. He shall render in writing, at the annual session of the board, a true and perfect account of his doings, with a statement of all moneys received and disbursed by him. He shall deliver to his successor, or any person authorized to receive them, by the board, all books, papers and moneys belonging to his office. For the faithful performance of his duties, he shall give bonds, with approved security, in the sum of \$5,000, but the sum may be increased from time to time, at the option of the board, and shall receive for his services such sum as the convention may determine.

ARTICLE VII.

DUTIES OF THE EXECUTIVE BOARD.

The duties of the executive board shall be:

1. To keep a regular correspondence with the various lodges or branches of the association and the officers of the different lodges on the condition of the trade; receive information on the state of the market; the production of the mines in each particular region, and the number of men employed, if a surplus or a scarcity of labor is apparent, transmit the same to the general secretary of the executive board, who shall preserve them in a book kept for that purpose, and draw off a monthly abstract of the same, and forward a copy to each branch or lodge to be read at their monthly meeting.

2. They shall also recommend, when they find it to the interest of any section, a partial contraction of the hours of labor, to prevent a glutting of their market, or a change in the location of a part of their men, and thus prevent a reduction in prices.

3. In all cases of dispute referred to the president of the board, if he finds it necessary, he shall call the members together, and they shall, upon

his call, meet, take up the question at issue and treat upon it in all its known bearings, arrive at a decision and report their decision to the secretaries or body interested; their action to be sustained by the entire association.

4. Before sanctioning a strike it shall adopt all lawful ways and means, including an offer to arbitrate, to effect an amicable settlement between the employer and employees.

5. In case the funds of the national treasury should be exhausted it shall be the privilege of a majority of the executive board to make such extra levy on the local organizations as, in their judgment, the exigencies of the case may require.

ARTICLE VIII.

STRIKES.

1. All members of the association in good standing, shall, in case of a legalized strike receive the sum of \$5 per week, but in no instance shall such member receive such assistance until the strike has been continued two weeks.

2. Any district or subordinate branch or lodge which considers itself aggrieved by unjust measures being imposed upon its members by their employers, and if after means of redress have proved fruitless, they deem it expedient to resort to a strike; shall be required to send their grievances to the president of the executive board, and should he deem it necessary, he shall repair to the place where the difficulty had its origin, and investigate the matter in person. After due and proper inquiry, should he deem the cause sufficient, he shall declare the strike legal; then every member concerned therein shall be entitled to all the benefits enumerated in section 1, of this article. Should he, however, find the cause insufficient to authorize a strike, he shall declare it illegal, and the members be required to desist from striking.

3. The initiation fees, together with the first quarter's dues from all branches, will be forwarded to the secretary of the executive board, thence to the treasurer, to form a fund for current and contingent expenses. The subsequent dues to remain in the hands of the local or branch lodge treasury, and form a special fund to be kept subject to the order of the president of the executive board, when required to be paid out to members upon strike.

4. There will be a per capita tax upon all members of this association, levied by the officers of all local branches and remitted monthly to the secretary of the executive board, sufficient to meet the current and general expenses of the association.

5. The secretary of every branch lodge will be required to furnish the general secretary of the association a monthly statement of the members

names on the books, the amounts of moneys received during the month, the expenses of the lodge and the amount of funds on hand.

6. The card system now in force in the Iron Moulders' International Union shall be adopted by this organization.

ARTICLE IX.

REPRESENTATIVES.

This association shall consist of delegates from the various local lodges and branches in good standing in the United States, the representation to be as follows: One delegate to each five hundred members or fractional part thereof. The sessions of this convention shall be held annually, on the fourth Tuesday of October of each year, at such places as the executive board may determine. Special sessions may be called when deemed necessary by the executive board.

2. All amendments or alterations to this constitution shall be presented in writing and forwarded to the general secretary, at least three months before the meeting of the annual convention, which, together with all other business to be presented before the convention, shall be forwarded to the various lodges, for their acceptance or rejection.

3. Any district lodge or branch failing to comply with the provisions of the foregoing constitution shall forfeit all claims to the benefits therein provided for.

4. This organization shall not disband so long as there are five dissenting lodges or branches.

